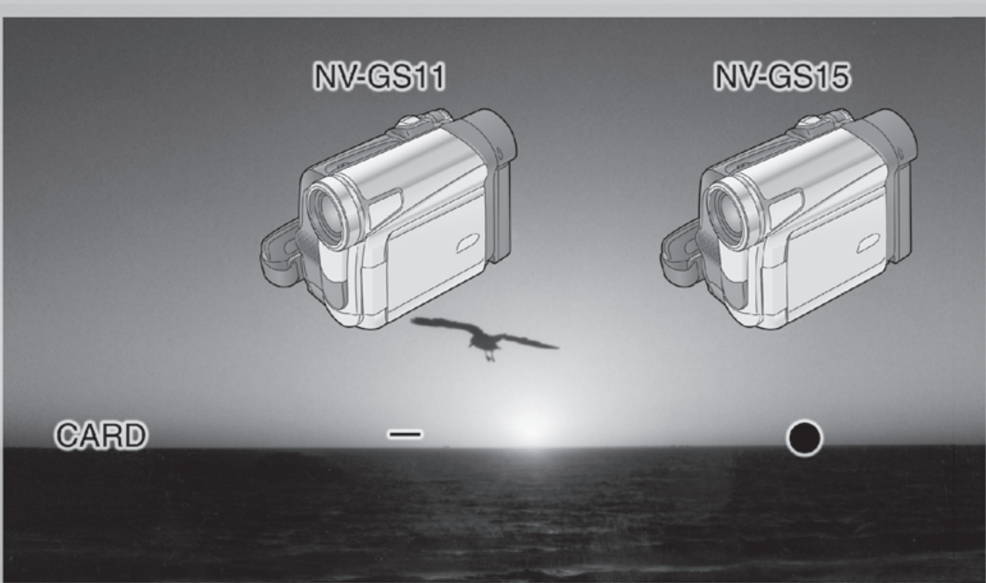
Panasonic®

使用说明书
Operating Instructions
Инструкция по эксплуатации

数码摄像机
Digital Video Camera

Model No. **NV-GS11GC/GK**
NV-GS15GC/GK



使用前，请完整阅读本说明书。

Before use, please read these instructions completely.

Перед пользованием прочтите, пожалуйста, эту инструкцию полностью.

Mini DV PAL
MultiMediaCard™
CERTIFIED USB

LSQT0781 A

安全注意事项

由于本设备使用时会变热，请在空气流通的地方进行操作，不要将此设备安置在狭窄的空间内，例如书柜或类似地方。

要降低起火、电击或产品损坏的危险，请勿将本设备暴露于雨中、潮湿、滴水或溅水的环境，并确保勿将盛满液体的物品 (如花瓶) 放在本设备上。

摄像机
- **标牌位于摄像机的下面。**

AC 适配器
- **标牌位于 AC 适配器的下面。**

■ 请仔细阅读使用说明书并正确使用摄像机。

- **由于未按照本使用说明书中说明的操作步骤进行操作，而导致的损害或材料损坏由用户负责。**

使用说明书
- 这些使用说明书适用于 NV-GS11 型和 NV-GS15 型。
- 这些使用说明书中所用的图解说明的是 NV-GS15 型，但部分的解释涉及不同的型号。
- 依据型号，某些功能不可用。

试用摄像机。

在记录第一个重要事件前，首先要试用一下摄像机，以保证其录制性能与各种功能能够正常使用。

制造商对于录制内容的损失不负任何责任。

制造商对于因摄像机、其附件或磁带的故障或缺陷造成的任何损失概不负责。

请严格遵守版权法。

若非个人使用，复制先期录制的磁带、磁盘、其它出版物或播放材料都侵犯版权法。即使是个人使用，也严禁复制某些特定材料。
- 摄像机使用了版权保护技术，并且被日本和美国的专利技术和知识产权所保护。要想使用这些版权保护技术，必须得到 Macrovision 公司的授权。禁止分解或改装摄像机。

- Windows 是美国 Microsoft 公司的商标或注册商标。
- SD 徽标是商标。
- 使用说明书中的所有其它公司和产品名称都是各个公司的商标或注册商标。

录制在 MultiMediaCard 或 SD 记忆卡上的文件

本摄像机可能无法回放由其它设备录制和创建的文件，反之亦然。为此，在使用前请检查设备的兼容性。
- 让记忆卡远离儿童的接触范围，以防止儿童吞服。

参照页

参照页页码两侧标有短划线，例如：*-00-*

■ 警告

请勿卸下机身的前盖 (或后盖)；机身内没有用户可维修的部件。
需要维修时，请联系授权的维修人员。

建议仅使用推荐的附件。

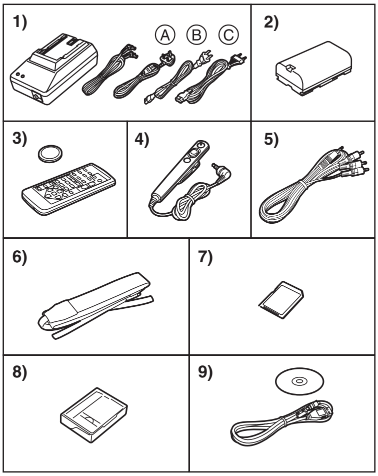
本设备应当安设在电源插座附近，以便电源插头或者设备的联接器，能够更容易地插入电源插座中。

目录

用前须知

标准附件

图示为随摄像机一起提供的附件。



1) AC 适配器、 DC 输入导线和 AC 电源线 *-8-*
- Ⓐ 中国香港特别行政区和沙特阿拉伯
- Ⓑ 中华人民共和国
- Ⓒ 中国香港特别行政区和中华人民共和国和沙特阿拉伯之外的地区

2) 电池组 *-8-*
3) 遥控器和钮扣型电池 *-6-*
4) 自由式控制器 *-7-*
5) AV 电缆 *-34-*
6) 肩背带 *-9-*
7) SD 记忆卡 (随 NV-GS15 型提供) *-10-*
8) 数码摄像头清洁器 *-46-*
9) USB 连接工具 (USB 电缆和 CD-ROM) *-38-*

可选附件

1) AC 适配器 (VW-AD9E/B)
2) 电池组 (锂电池 /CGR-D08S/800mAh)
3) 电池组 (锂电池 /CGR-D16S/1600mAh)
4) 电池组 (锂电池 /CGP-D28S/2800mAh)
5) 车用蓄电池充电器 (VW-KBD2E)
6) 广角转换镜头 (VW-LW2707N2E)
7) 长焦转换镜头 (VW-LT2714N2E)
8) ND 滤镜 (VW-LND27E)
9) MC 保护镜 (VW-LMC27E)
10) 立体声麦克风 (VW-VMS2E)
11) 直流摄影灯 (VW-LDC10E)
12) 直流摄影灯的灯泡 (VZ-LL10E)
13) 座式适配器 (VW-SK11E)
14) 三脚架 (VW-CT45E)
15) DV 电缆 (VW-CD1E)
16) DV 编辑软件，带 DV 接口卡 (VW-DTM41E)

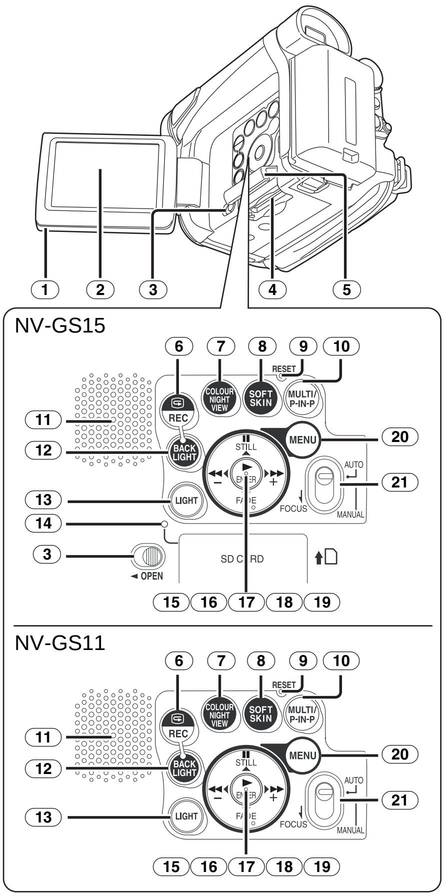
下列各项仅适用于 NV-GS15 型。

17) SD 记忆卡
(RP-SD008/RP-SD016/RP-SD032/RP-SD064/RP-SD128/RP-SDH256/RP-SDH512)
18) MultiMediaCard(多媒体卡)
(VW-MMC8E/VW-MMC16E)
19) 用于 SD 记忆卡的 PC 卡适配器
(BN-SDABPE)
20) 用于 SD 记忆卡的 USB 读写器
(BN-SDCAPE)

- 在某些国家，可能不提供某些可选附件。

控件和部件

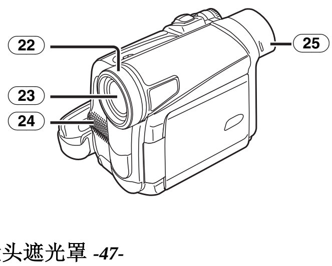
■ 摄像机



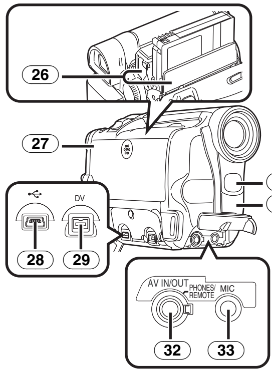
① **LCD 监视器打开钮 [OPEN▼]** *-11-*
② **LCD 监视器** *-11-*、 *-47-*

> 由于 LCD 生产技术所限，在 LCD 监视器屏幕上会有一些微小的亮点或暗点。但这并非故障，不会影响录制的图像。

③ **卡槽盖打开杆 [OPEN] (仅 NV-GS15 型)** *-10-*
④ **卡槽 (仅 NV-GS15 型)** *-10-*
⑤ **卡槽盖 (仅 NV-GS15 型)** *-10-*
⑥ **录制检查按钮 [⟲]** *-16-*
录制按钮 [REC] *-36-*、 *-37-*
⑦ **彩色夜视按钮 [COLOUR NIGHT VIEW]** *-21-*
⑧ **肌肤柔和按钮 [SOFT SKIN]** *-21-*
⑨ **复位按钮 [RESET]** *-41-*, *-49-*
⑩ **多画面按钮 [MULTI]** *-25-*、 *-30-*
画中画按钮 [P-IN-P] *-26-*
⑪ **扬声器** *-27-*
⑫ **逆光按钮 [BACK LIGHT]** *-20-*
⑬ **摄影灯按钮 [LIGHT]** *-18-*
⑭ **卡存取指示灯 (仅 NV-GS15 型)** *-10-*
⑮ **暂停按钮 [❚❚]** *-28-*
静态按钮 [STILL] *-17-*
⑯ **快进 / 快进搜索按钮 [▶▶]** *-27-*、 *-30-*
⑰ **播放按钮 [▶]** *-27-*、 *-30-*
回车按钮 [ENTER] *-12-*
⑱ **停止按钮 [■]** *-27-*、 *-30-*
淡化按钮 [FADE] *-20-*
⑲ **倒带 / 倒带搜索按钮 [◀◀]** *-27-*、 *-30-*
⑳ **菜单按钮 [MENU]** *-12-*
㉑ **模式选择器开关 [AUTO/MANUAL/FOCUS]** *-16-*、 *-22-*



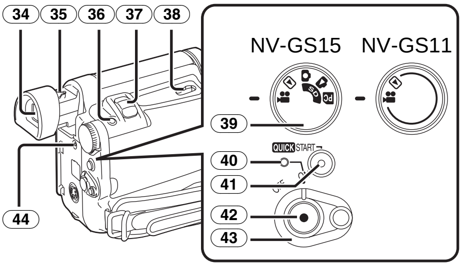
㉒ **镜头遮光罩** *-47-*
㉓ **镜头**
㉔ **麦克风 (内置立体声)** *-19-*、 *-21-*
㉕ **眼罩**



㉖ **磁带盒架**
㉗ **磁带盒盖** *-10-*
㉘ **USB 插孔 [⭠]** *-38-*
㉙ **DV 端子 [DV]** *-37-*
- 可将该端子连接至数码视频设备

㉚ **内置 LED 摄影灯** *-18-*
㉛ **白平衡传感器** *-22-*
遥控传感器 *-7-*
㉜ **音频 - 视频输入 / 输出插孔 [AV IN/OUT]** *-34-*
自由式遥控器插孔 [REMOTE]
耳机插孔 [PHONES]
- 将AV电缆接入此插孔将启动摄像机的内置扬声器，但如果连接了耳机等，扬声器将停用。
- 将 AV 电缆的针式插头连接到此插孔时，请尽量插到底。
- 将自由式遥控器的针式插头连接到此插孔时，请尽量插到底。
- 使用头戴耳机时，请将 [AV IN/OUT] 或 [INITIAL] 子菜单的 [AV JACK] 设定为 [OUT/PHONES]。如果您已将 [AV JACK] 设定为 [OUT]，右声道可能会听见噪音。

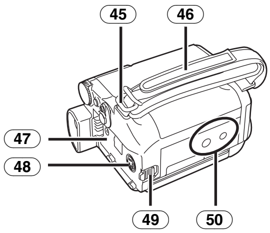
㉝ **麦克风插孔 [MIC]**
- 将外置麦克风或者音频设备连接到该插孔时，就不能使用内置麦克风。



34 取景器 *-11-*、 *-47-*

> 由于 LCD 生产技术所限，在取景器屏幕上可能会有一些微小的亮点或者暗点。但这并非故障，不会影响录制的图像。

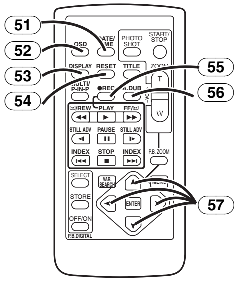
35 目镜校正旋钮 *-11-*
36 拍照按钮 **[PHOTO SHOT]** *-17-*、 *-17-*、 *-35-*
37 变焦杆 **[W/T] [−VOL/JOG+]** *-19-*
38 磁带弹出杆 **[OPEN/EJECT]** *-10-*
39 模式旋钮 *-11-*
40 电源灯 *-10-*、 *-16-*、 *-27-*
41 快速启动拍摄按钮 **[QUICK START]** *-18-*
快速启动拍摄灯 *-18-*
42 拍摄开始 / 停止按钮 *-16-*
43 电源开关 **[OFF/ON]** *-10-*、 *-16-*、 *-45-*
44 **DC** 输入插孔 **[DC/C.C.IN]** *-8-*



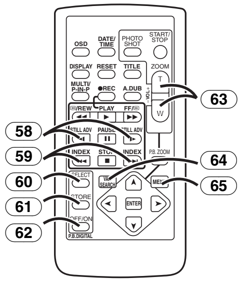
45 肩背带固定器 *-9-*
46 手持带 *-9-*
47 电池座
48 **S-Video** 输入 / 输出插孔 **[S-VIDEO IN/OUT]** *-34-*
49 电池释放杆 **[BATTERY RELEASE]** *-8-*
50 三脚架座
●用于把摄像机安装在三脚架 (可选件) 上。

■遥控器

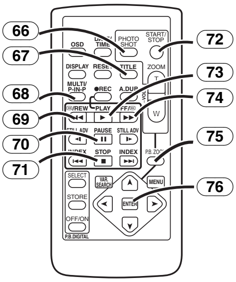
使用随摄像机提供的无线遥控器，可以距摄像机一定距离使用其大部分功能。



51 日期 / 时间按钮 **[DATE/TIME]** *-41-*
52 指示输出按钮 **[OSD]** *-34-*
53 显示按钮 **[DISPLAY]** *-41-*
54 复位按钮 **[RESET]** *-50-*
55 录制按钮 **[●REC]** *-36-*、 *-37-*
56 配音按钮 **[A.DUB]** *-35-*
57 用于变速搜索功能的指针按钮 **[▲, ▼]** *-28-*
用于回放变焦功能的方向按钮
[▲， ▼， ◄， ►] *-29-*



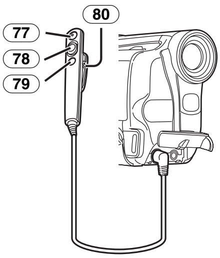
58 慢动作 / 静态前进按钮 **[◂I, I▸]**
(◂I： 向后， **I▸：** 向前 **)** *-28-*
59 索引搜索按钮 **[I◄◄, ►►I]**
(I◄◄ ： 向后， **►►I ：** 向前 **)** *-29-*
60 选择按钮 **[SELECT]** *-30-*
61 存储按钮 **[STORE]** *-30-*
62 开 / 关按钮 **[OFF/ON]** *-30-*
63 变焦 / 音量按钮 **[ZOOM/VOL]** *-19-*、 *-27-*、 *-29-*
64 变速搜索按钮 **[VAR. SEARCH]** *-28-*
65 菜单按钮 **[MENU]** *-12-*



66 拍照按钮 **[PHOTO SHOT]** *-17-*、 *-35-*
67 标题按钮 **[TITLE]** *-32-*
68 多画面/画中画按钮 **[MULTI/P-IN-P]** *-25-*、 *-30-*
69 倒带 / 倒带搜索按钮 **[◀◀]** *-27-*、 *-30-*
70 暂停按钮 **[❚❚]** *-28-*
71 停止按钮 **[■]** *-27-*、 *-30-*
72 拍摄开始 / 停止按钮 **[START/STOP]** *-16-*
73 播放按钮 **[▶]** *-27-*、 *-30-*
74 快进 / 快进搜索按钮 **[▶▶]** *-27-*、 *-30-*
75 回放变焦按钮 **[P.B. ZOOM]** *-29-*
76 回车按钮 **[ENTER]** *-12-*

■ 自由式遥控器

该控制器可让您从各种角度 (由高至低) 来拍摄场景，且在使用三脚架时也很便利。当不用控制器时，将线夹连接到手持带上会很方便。
该遥控器允许摄影机适用于惯用左手的用户。



77 拍摄开始 / 停止按钮 **[REC]**
78 变焦杆 **[W/T]**
79 拍照按钮 **[PHOTO SHOT]**
80 线夹

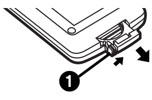
- **将插头插入 [REMOTE] 插孔时，应牢固地插到底。连接不牢会影响正常操作。**

遥控器

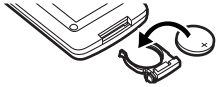
■ 安装钮扣型电池

使用遥控器之前，请先安装好随附的钮扣型电池。

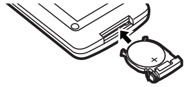
1 在按住止动钮 ❶ 的同时，取出电池座。



2 插入钮扣型电池，注意使有 (+) 印记的面朝上。



3 把电池座插入遥控器。



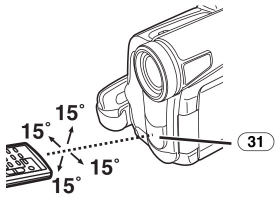
- 当钮扣型电池电力耗尽时，请换上新的 CR2025 电池。(电池在正常情况下可以使用大约 1 年。但具体使用时间取决于使用频率。)
- 安装电池时，要确保极性正确匹配。

> *注意*
> 如果电池放置错误，有发生爆炸的危险。更换电池时，只能使用与原电池相同的电池或设备制造商建议使用的同等类型的电池。要按照制造商的说明，妥善处理用过的电池。

> *警告*
> 有火灾、爆炸和灼伤的风险。请勿重新给电池充电、分解电池、使其温度升高到 100°C 以上或者焚烧电池。要让钮扣型电池远离孩子。决不能把钮扣型电池放入口中。如果吞下电池，请立即找医生。

■ 使用遥控器

1 将遥控器直接对准摄像机的遥控传感器 31 并按相应的按钮。



- 与摄像机的距离：大约 5 米之内
- 角度：应保持相对于中心轴线的垂直和水平方向大约 15° 的范围内
- 上述操作范围仅限于室内。室外或者强光条件下，在上述操作范围里，摄像机可能无法正常工作。

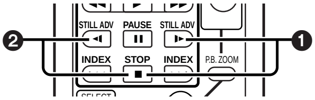
选择遥控器模式

当同时使用 2 台摄像机时，可通过选择不同的遥控器模式实现各自的操作。

- 如果摄像机的遥控器模式和遥控器不匹配，会显示 [REMOTE] 指示。

在摄像机上设置:
将 [INITIAL] 子菜单上的 [REMOTE] 设置为所需的遥控器模式。(*-13-*)

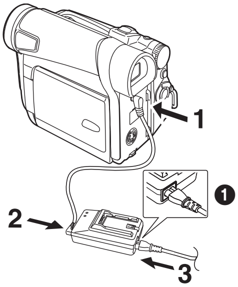
在遥控器上设置:



[VCR1]：同时按下 [▶] 按钮和 [■] 按钮。❶
[VCR2]：同时按下 [◀] 按钮和 [■] 按钮。❷
● 更换遥控器中的电池后，其模式也自动复位到 [VCR1] 模式。

电源

■ 使用 AC 适配器



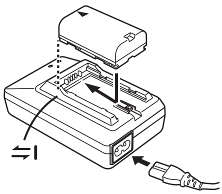
1 把 DC 输入导线连接到摄像机的 [DC/C.C.IN] 插孔中。
2 把 DC 输入导线连接到 AC 适配器。
3 把 AC 电源线连接到 AC 适配器和 AC 电源插孔。
- ●AC 电源线的插头不能完全插入 AC 适配器的插孔。会留有如图 ❶ 所示的间隙。

● 在连接或断开电源之前，将摄像机的 [OFF/ON] 开关设置为 [OFF] 并确认电源灯未亮。

■ 使用电池

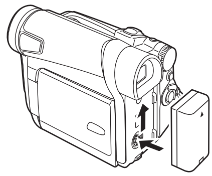
使用之前，请把电池完全充电。
● 我们建议您使用 Panasonic 的电池。
● 当使用其它公司的电池时，我们不能保证该摄像机的品质。

1 将电池装入 AC 适配器并充电。

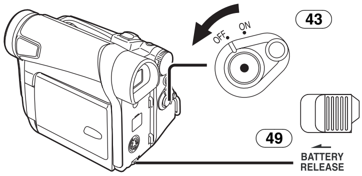


- ● 由于 DC 输入线与 AC 适配器连接时无法对电池充电，所以请断开它们。
- ●[POWER] 指示灯和 [CHARGE] 指示灯亮起，充电开始。
- ● 当 [CHARGE] 指示灯熄灭时，说明已完成充电。
- ● 当给过放电的电池充电时，一开始 [CHARGE] 指示灯会闪亮，但电池仍可正常充电。当电池的温度太高或太低时，[CHARGE] 指示灯将闪亮，充电时间要比平时长。

2 把充过电的电池安装到摄像机上。



取出电池
将 [OFF/ON] 开关 (43) 设置为 [OFF]，在滑动 [BATTERY RELEASE] 杆 (49) 的同时，滑动电池以将其取出。
- ● 当安装或取出电池时，将 [OFF/ON] 开关设置为 [OFF]，并确认 [POWER] 指示灯未亮起。



■ 使用车用蓄电池充电器 (可选件)

如果使用车用蓄电池充电器 (VW-KBD2E ；可选件)，可以向摄像机提供电源，并在车内给电池充电。为了了解更详尽的信息，请参见车用蓄电池充电器的使用说明书的内容。
● 连接车用适配器线缆前一定要启动汽车发动机，否则保险丝将熔断。

● 有关此项目的其它注释，请参阅 *-42-*。

充电时间和可用录制时间

NV-GS11/NV-GS15		
CGR-D08R CGR-D08S	Ⓐ	1h
	Ⓑ	2h10min. (1h45min.)
	Ⓒ	1h5min. (55min.)
CGR-D16S	Ⓐ	2h
	Ⓑ	4h20min. (3h30min.)
	Ⓒ	2h10min. (1h45min.)
CGP-D28S	Ⓐ	3h15min.
	Ⓑ	7h40min. (6h)
	Ⓒ	3h50min. (3h)

Ⓐ 充电时间
Ⓑ 最大连续摄录时间
Ⓒ 间断摄录时间
（间断摄录时间是指包含重复摄录和停止动作在内的可用摄录时间。）
“1h10min.”表示 1 小时 10 分钟。

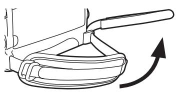
- 随附电池为 CGR-D08R。
- 表中所示时间为近似值。数字表示使用取景器时的摄录时间。括弧中的数字表示使用 LCD 监视器时的摄录时间。在实际使用中，摄录时间可能会稍短。
- 表中所示的时间是指温度为 25°C，湿度为 60% 时的连续摄录时间。如果电池充电时温度高于或低于此值，则充电时间可能会更长。
- 在使用彩色夜视功能，向前转动 LCD 监视器拍摄自己，或将 [EVF ON/AUTO] 设置为 [ON] 时，如果同时使用取景器和 LCD 监视器，则可用录制时间将变短。

手持带

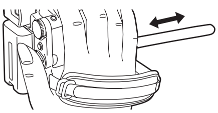
■ 用作手持带

可以根据手的大小来调节手持带的长度。

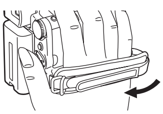
1 打开手持带。



2 可以根据手的大小来调节手持带的长度。



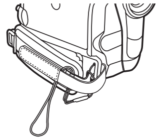
3 重新装好手持带。



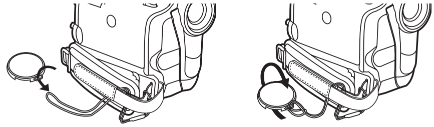
重新安装镜头盖时

为了保护镜头表面，请安装镜头盖。

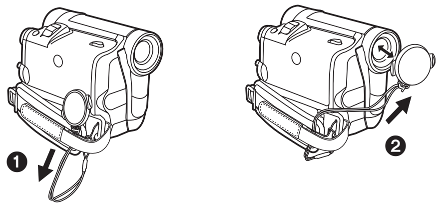
1 镜头盖和镜头盖线已预先安装在手执带上。



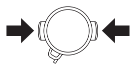
2 将镜头盖吊带的末端穿过镜头盖上的连接眼。然后将镜头盖穿过其自己结成的环，并拉紧。



- 当不使用镜头盖时，朝箭头方向拉出镜头盖吊带。❶
- 在不拍摄期间，为了保护镜头，请确保镜头盖盖在镜头上。❷



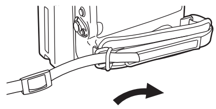
- 当取下镜头盖时，请用力按住旋钮。



安装肩背带

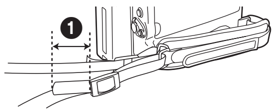
我们建议您在出门拍摄之前装上肩背带，以防止摄像机掉下。

1 把肩背带的一端穿过摄像机上的肩背带固定器。



2 折叠肩背带端头，然后将其穿过肩背带长度调节器，再拉出此端头。

- 端头应拉出肩背带长度调节器 2 厘米 ❶ 以上，以防止其脱落。

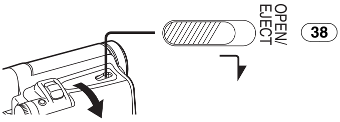


- 用同样的方法，把肩背带的另一端安装到另一个肩背带固定器内。

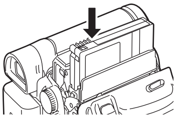
插入磁带

1 **朝前滑动[OPEN/EJECT]杆 (38)，向下拖动以打开磁带盒盖。**

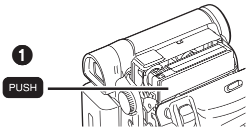
●为了保护磁带，如果仓盖没有完全打开，磁带不能弹出。



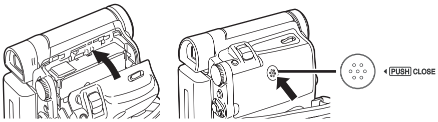
2 **插入磁带。**



3 **按 [PUSH] 标记 ❶ 关闭磁带盒架。**

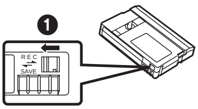


4 **关闭磁带盒盖。**



■ 防止意外删除

打开磁带上的防止意外删除滑块 ❶ (向 [SAVE] 箭头方向滑动滑块)，以防止录制。要想录制，请关闭防止意外删除滑块 (将它拨向 [REC] 箭头方向)。



●有关此项目的其它注释，请参阅 *-42-*。

使用卡 (仅 NV-GS15 型)

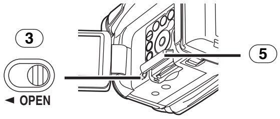
卡可用于拍摄图像。

插入或取出卡片之前，必须关闭摄像机。

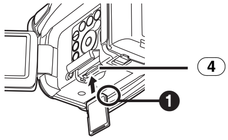
●否则，摄像机可能无法正常工作，或导致卡片上所录数据的丢失。

■ 插入卡

1 **滑动 [OPEN] 杆 (3)，打开卡槽盖 (5)。**



2 **握住记忆卡，使其缺角朝向正确 ❶，然后将其插入卡槽 (4)。**



3 **将卡槽盖 (5) 关紧。**

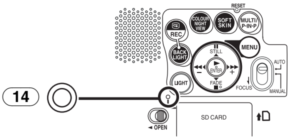
取出卡

打开卡槽盖并按卡的中心，然后将其垂直拔出。

●取出卡之后，关闭卡槽盖。

●当卡完全插入时，如果将卡强力取出，摄像机可能被损坏。

■ 卡存取指示灯 (14)



当摄像机访问卡 (读取、录制、回放或删除) 时，卡存取指示灯亮起。

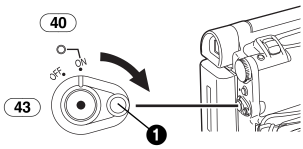
●卡存取指示灯亮时，切勿打开卡槽盖、拔出卡、关闭摄像机电源或转动 Mode Dial。否则将损坏卡和所录制的数据，并导致摄像机出现故障。

打开摄像机

■ 如何接通电源

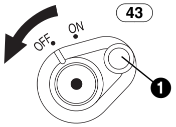
1 **在按下按钮 ❶ 的同时，将 [OFF/ON] 开关 (43) 设置为 [ON]。**

●[POWER] 指示灯 (40) 亮起。



■ 如何关闭电源

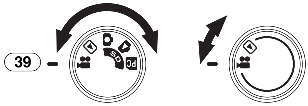
1 在按按钮❶的同时，将[OFF/ON]开关(43)设置为[OFF]。



选择模式

可以通过转动模式旋钮选择所需的模式。

1 转动 Mode Dial (39)。



NV-GS15　NV-GS11

🎥：磁带录制模式
当录制磁带上的图像时使用这个模式。
仅 NV-GS15 型：同样，在录制磁带期间，也可以同时在卡上录制静态图像。

▶：磁带回放模式
当回放磁带上录制的场景时使用这个模式。

📷：卡录制模式 (仅 NV-GS15 型)
当录制卡上的静态图像时使用这个模式。

▶：图像回放模式 (仅 NV-GS15 型)
当回放卡上录制的静态图像时使用这个模式。

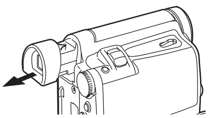
PC：PC 模式 (仅 NV-GS15 型)
当想将摄像机和个人计算机连接时使用这个模式。

使用取景器 /LCD 监视器

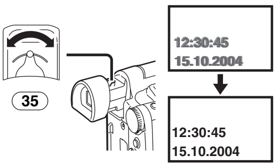
■ 使用取景器

在使用取景器之前，请调节视野，使取景器内的显示清晰可辨。

1 拉出取景器。



2 转动目镜校正钮 (35) 进行调节。



使用 LCD 监视器的同时使用取景器

设置 [LCD/EVF] >> [EVF ON/AUTO] >> [ON]。

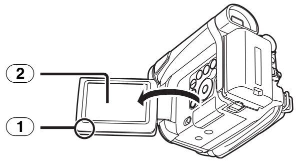
- 即使打开 LCD 监视器，取景器也不能关闭。
- 如果关闭摄像机，则取消设置。

■ 使用 LCD 监视器

在 LCD 监视器打开时，可以边拍摄边查看。

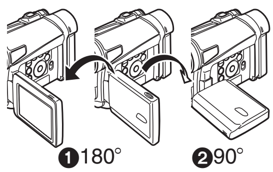
1 将手指按在 [OPEN▼] 钮 (1) 上，并朝箭头方向拉出 LCD 监视器 (2)。

- 取景器不能启动。
- LCD监视器最大可以打开120°。如果将LCD监视器打开至 120°，则操作菜单或回放图像变得十分方便。



2 根据所需拍摄角度，调整 LCD 监视器的角度。

- LCD 监视器从垂直位置向上的最大旋转角度为 180° ❶，从垂直位置向下的最大旋转角度为 90° ❷。如果强力将 LCD 监视器旋转到这些范围之外，将损坏摄像机。



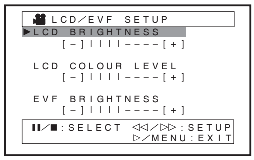
关闭 LCD 监视器

推动 LCD 监视器，直到牢靠地锁定为止。

- 确定卡槽盖已关闭。(仅 NV-GS15 型)

■ 调整亮度和色彩级别

当 [LCD/EVF] 子菜单上的 [LCD/EVF SET] 设置为 [YES] 时，将显示以下项目。



LCD 亮度 [LCD BRIGHTNESS]
用于调整 LCD 屏幕上影像的亮度。

LCD 色彩级别 [LCD COLOUR LEVEL]
用于调整 LCD 屏幕上影像的色彩饱和度。

取景器亮度 [EVF BRIGHTNESS]
用于调整取景器中影像的亮度。

调整

按 **[▮▮/■]** 按钮，选择要调整的项目，然后按 **[◀◀/▶▶]** 按钮，以增加或者减少条状指示中的竖条数量。

- 竖条数量越多，则表示亮度或色彩饱和度越高。

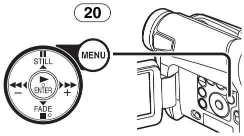
- 有关此项目的其它注释，请参阅 *-47-*。

使用菜单屏幕

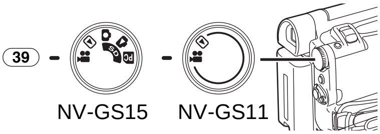
为便于选择所需的功能或设置，该款摄像机在菜单上显示出各种功能设置。

- 当用取景器操作菜单时，设置 [LCD/EVF] >> [EVF ON/AUTO] >> [ON] 或将 LCD 监视器旋转 180°。

1 按 [MENU] 按钮 (20)。



- 此时将显示一个菜单，此菜单与使用模式旋钮 (39) 选择的模式相对应。



2 按 [❚❚/■] 按钮，选择所需的子菜单。
- 按 [❚❚/■] 按钮显示高亮度项目。

3 按 [▶▶] 按钮，显示所选择的子菜单。
4 按 [❚❚/■] 按钮，选择项目。
5 按 [▶▶] 按钮，显示所选择的项目。
6 按 [❚❚/■] 按钮，选择所需的模式，然后按 [ENTER] 按钮，确定设置。

- 当显示菜单时，不能进行摄录或回放。回放过程中可以显示菜单，但摄录过程中却不能。可以用遥控器上的 [MENU] 按钮、[▲，▼，◀，▶] 按钮和 [ENTER] 按钮来完成上述操作。(*-6-*)

返回上一级屏幕
按 [◀◀] 按钮。

退出菜单屏幕
再次按 [MENU] 按钮。

关于菜单模式设置

即使摄像机关闭，在菜单上所选的设置也将得到保存。但是如果在关闭摄像机之前断开电池或者 AC 适配器，则所选的设置可能不会得到保存。(对于 [EFFECT2] (*-25-*) 的设置不会得到保存。)

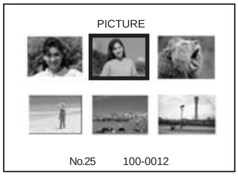
- 菜单操作流程在本文中见 >>。

■ 在图像回放模式中的文件选择 (仅 NV-GS15 型)

在菜单操作中，可能需要文件选择操作。在这种情况下，请完成以下步骤。

1 按 [❚❚/■/◀◀/▶▶] 按钮，选择一个文件。

- 所选文件标有外框。



2 按 [ENTER] 按钮 (17)，确认文件的选择。

- 执行完上述文件选择步骤之后，可进行各种菜单操作。(上述步骤在下面的说明中不再重复。)

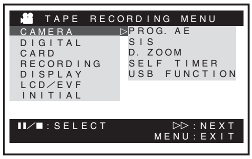
菜单列表

菜单图示仅用于介绍，与实际菜单有所不同。

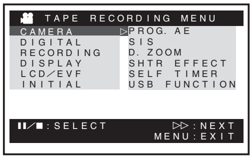
■ 🎥 [TAPE RECORDING MENU]

磁带录制模式

NV-GS15



NV-GS11



1) [CAMERA]

相机设置子菜单

[PROG.AE]

自动曝光模式 *-22-*

[SIS]

影像稳定器 *-20-*

[D.ZOOM]

数码变焦 *-19-*

[SHTR EFFECT] (仅 NV-GS11 型)

快门特效 *-17-*

- 可以添加如同松开快门时的声音。

[SELF TIMER]

自拍器拍摄 *-19-*

[USB FUNCTION]

USB 功能模式 *-38-*

- 如果按 [◀◀] 按钮，菜单将返回上一级屏幕。

2) [DIGITAL]

数码设置子菜单

[EFFECT1]

数码特效 1 *-25-*

[EFFECT2]

数码特效 2 *-25-*

[MULTI MODE]

多画面模式 *-25-*

[TITLE IN] (仅 NV-GS15 型)

添加标题 *-32-*

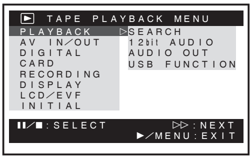
3) [CARD] (仅 NV-GS15 型)
卡设置子菜单
[PICT QUALITY]
图像质量 *-17-*
[CREATE TITLE]
标题创建 *-31-*
4) [RECORDING]
录制设置子菜单
[REC SPEED]
录制速度模式 *-15-*
[AUDIO REC]
音频录制模式 *-15-*
[SCENE INDEX]
场景索引模式 *-29-*
[WIND CUT]
消除风干扰 *-21-*
[ZOOM MIC]
变焦麦克风 *-19-*
[CINEMA]
类电影格式拍摄 *-21-*
5) [DISPLAY]
显示设置子菜单
[DISPLAY]
显示模式 *-41-*
[DATE/TIME]
日期和时间指示 *-41-*
[C.DISPLAY]
计数器显示模式 *-41-*
[C.RESET]
计数器复位 *-50-*
- 可使计数器复位为零。但不能复位时间码。

6) [LCD/EVF]
LCD/EVF 设置子菜单
[LCD/EVF SET]
LCD 和取景器调整 *-11-*
[SELF REC]
自拍 *-16-*
[EVF ON/AUTO]
使用取景器 *-11-*
7) [INITIAL]
初始设置子菜单
[BLANK SEARCH]
空白搜索 *-17-*
[DEMO MODE]
演示模式
- 将AC适配器连接到摄像机并将[OFF/ON]开关设置为 [ON] 时，如果在大约 10 分钟后没有插入磁带或卡，并且无任何操作，摄像机将自动进入演示模式，以介绍其功能。按下或操作任何按钮将退出演示模式。要启动演示模式，可将 [DEMO MODE] 设置为 [ON] 并退出菜单。要停止演示模式，可插入磁带或将 [DEMO MODE] 设置为 [OFF]。

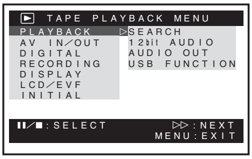
[AV JACK]
AV 插孔 *-48-*
[REMOTE]
遥控器模式 *-8-*
[BEEP SOUND]
嘟嘟声 *-42-*
[CLOCK SET]
日期和时间设置 *-15-*
[INITIAL SET]
初始设置模式 *-41-*

■ [TAPE PLAYBACK MENU]
磁带回放模式

NV-GS15



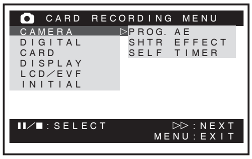
NV-GS11



1) [PLAYBACK]
回放功能子菜单
[SEARCH]
索引搜索模式 *-29-*
[12bit AUDIO]
音频选择器 *-35-*
[AUDIO OUT]
音频输出模式 *-44-*
[USB FUNCTION]
USB 功能模式 *-38-*
2) [AV IN/OUT]
音频一视频输入 / 输出设置子菜单
[AV JACK]
AV 插孔 *-35-*
[A.DUB INPUT]
配音输入 *-35-*
[DV OUT]
模数转换输出 *-45-*
3) [DIGITAL]
回放数码设置子菜单
[EFFECT ON]
数码特效开 / 关 *-30-*
[EFFECT SEL]
数码特效选择 *-30-*
[TITLE IN] (仅 NV-GS15 型)
添加标题 *-32-*
4) [CARD] (仅 NV-GS15 型)
卡设置子菜单
[PICT QUALITY]
图像质量 *-17-*
[CREATE TITLE]
标题创建 *-31-*
5) [RECORDING]
录制设置子菜单

[REC SPEED]
录制速度模式 *-15-*
[AUDIO REC]
音频录制模式 *-15-*
6) [DISPLAY]
显示设置子菜单
●[DISPLAY] 子菜单上的所有项目均和 [TAPE RECORDING MENU] 主菜单的 [DISPLAY] 子菜单中的各项相同。
7) [LCD/EVF]
调整亮度和色彩级别
[LCD/EVF SET]
LCD 和取景器调整 *-11-*
[EVF ON/AUTO]
使用取景器 *-11-*
8) [INITIAL]
初始设置子菜单
[BLANK SEARCH]
空白搜索 *-17-*
[REMOTE]
遥控器模式 *-8-*
[BEEP SOUND]
嘟嘟声 *-42-*

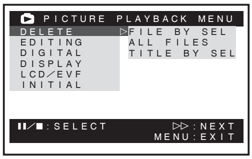
■ [CARD RECORDING MENU] (仅 NV-GS15 型)
卡录制模式



1) [CAMERA]
相机设置子菜单
[PROG.AE]
自动曝光模式 *-22-*
[SHTR EFFECT]
快门特效 *-42-*
●可以添加如同松开快门时的声音。
[SELF TIMER]
自拍器拍摄 *-19-*
2) [DIGITAL]
数码设置子菜单
[TITLE IN]
添加标题 *-32-*
3) [CARD]
卡设置子菜单
[PICT QUALITY]
图像质量 *-17-*
[CREATE TITLE]
标题创建 *-31-*
[BURST MODE]
连续拍照 *-18-*
4) [DISPLAY]
显示设置子菜单

[DISPLAY]
显示模式 *-41-*
[DATE/TIME]
日期和时间指示 *-41-*
5) [LCD/EVF]
调整亮度和色彩级别
●[LCD/EVF] 子菜单上的所有项目均和 [TAPE RECORDING MENU] 的 [LCD/EVF] 子菜单中的各项相同。
6) [INITIAL]
初始设置子菜单
[AV JACK]
AV 插孔 *-48-*
[REMOTE]
遥控器模式 *-8-*
[BEEP SOUND]
嘟嘟声 *-42-*
[CLOCK SET]
日期和时间设置 *-15-*
[INITIAL SET]
初始设置模式 *-41-*

■ [PICTURE PLAYBACK MENU] (仅 NV-GS15 型)
图像回放模式

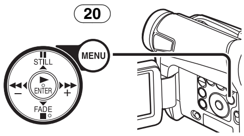


1) [DELETE]
删除文件子菜单
[FILE BY SEL]
选择并删除一个文件 *-33-*
[ALL FILES]
删除所有文件 *-33-*
[TITLE BY SEL]
选择并删除一个标题 *-33-*
2) [EDITING]
编辑文件子菜单
[FILE LOCK]
设置锁 *-33-*
[DPOF SET]
设置 DPOF *-32-*
[CARD FORMAT]
格式化卡 *-33-*
3) [DIGITAL]
回放数码设置子菜单
[TITLE IN]
添加标题 *-32-*
4) [DISPLAY]
显示设置子菜单
●[DISPLAY] 子菜单上的所有项目均和 [TAPE RECORDING MENU] 的 [DISPLAY] 子菜单中的各项相同。

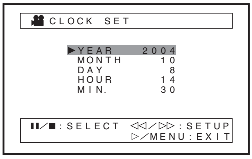
5) [LCD/EVF]
调整亮度和色彩级别
[LCD/EVF SET]
LCD 和取景器调整 *-11-*
[EVF ON/AUTO]
使用取景器 *-11-*
6) [INITIAL]
初始设置子菜单
[AV JACK]
AV 插孔 *-48-*
[REMOTE]
遥控器模式 *-8-*

设置日期和时间

由于摄像机的内部时钟不是特别精确，所以请务必在摄录前检查时间。



1 设置 [INITIAL] >> [CLOCK SET] >> [YES]。



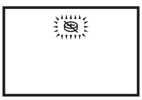
2 按 [❚❚/■] 按钮选择 [YEAR]、 [MONTH]、[DAY]、 [HOUR] 或 [MIN.]，然后按 [◀◀/▶▶]，将它设置为所需的值。
- 年份将按如下所示的顺序循环。
  2000, 2001, ..., 2089, 2000, ...

3 按 [MENU] 按钮 (20)，完成日期和时间的设置。
- 时钟将从 [00] 秒开始。

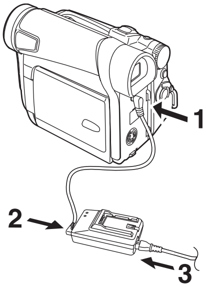
- 如果内置电池电量不足，则 [⊗] 指示将闪烁。在这种情况下，请对内置电池充电。
- 时钟采用 24 小时制。

内部锂电池充电

内部锂电池维持时钟的运转。当 [⊗] 指示闪烁时，表示内部锂电池的电能将耗尽。



1 在将电源关闭的情况下，将 AC 适配器连接到摄像机，然后再连接到 AC 电源插座。



- 充电 4 小时后，内置锂电池可为时钟供电约 3 个月。

LP 模式

利用 [RECORDING] 子菜单上的 [REC SPEED]，可以选择所需的录制速度。
如果选择 LP 模式，则摄录时间将比 SP 模式长 1.5 倍。
虽然使用 LP 模式录制时影像质量不会下降，但回放时会出现马赛克干扰，或者某些正常功能受到限制。
- 用LP模式录制的内容与其它设备不能完全兼容。
- 用 LP 模式不能进行配音。(*-35-*)

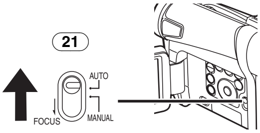
音频录制模式

使用 [RECORDING] 子菜单上的 [AUDIO REC]，可以选择所录声音的音质。
使用 “16 bit 48 kHz 2 track” (16 位 48 千赫兹 2 声道) 模式时，可以实现高质量的录音。使用 “12 bit 32 kHz 4 track”(12 位 32 千赫兹 4 声道) 模式时， 2 个声道用于将原声录制为立体声，另 2 个声道可用于录制配音。

录制模式

关于拍摄

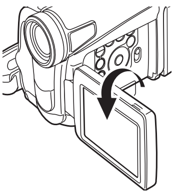
当在磁带上录制图像时，设置模式旋钮到磁带录制模式 [ ]。
当在卡上录制静态图像时，设置模式旋钮到卡录制模式 [ ] (仅 NV-GS15 型)。
在拍摄时，如将 [AUTO/MANUAL/FOCUS] 开关 (21) 设置为 [AUTO]，摄像机将自动调整焦距和白平衡。在某些情况下，不能进行自动调节，这时就需要手动调节。(*-22-*, *-24-*)



- **在接通电源前，请取下镜头盖。如果在未取下镜头盖时打开电源，自动白平衡调节 (*-22-*) 可能无法正常工作。**
- 当拍摄暂停模式持续时间超过 6 分钟，电源会自动关闭，以保护磁带并节省电量。(如果使用 AC 适配器，电源仅在磁带录制模式下插入磁带时关闭。) 在磁带录制模式下，当磁带已插入时，如果拍摄暂停模式持续时间超过 6 分钟，电源会自动关闭。
  要从此状态下恢复录制，需先关闭电源，然后再打开电源。
- 当用 USB 缆线将摄像机连接至电脑时，待机状态将不能工作。

■ 自拍

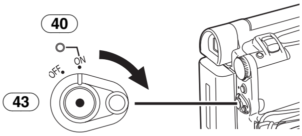
打开 LCD 监视器并将其向前转 (向镜头一侧)，可以在拍摄时使摄像机监视器前的对象成为拍摄目标。



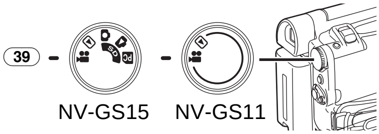
- 当打开 LCD 监视器时，取景器自动停用。然而，当 LCD 监视器转向前面时，还可以在取景器中显示影像。
- 如果您喜欢在 LCD 监视器中取景，就好像是在镜子里看影像一样，请将 [LCD/EVF] 子菜单上的 [SELF REC] 设置为 [MIRROR]。这样，影像就被正常录制，不会出现左右互换。

录制到磁带

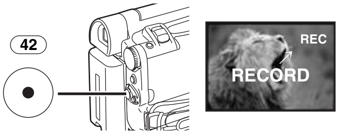
1 **将 [OFF/ON] 开关 (43) 设置为 [ON]。**
- [POWER] 指示灯 (40) 亮起。



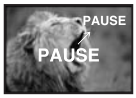
2 **将模式旋钮 (39) 设置为磁带录制模式。**



3 **按拍摄开始 / 停止按钮 (42)。**
- 录制开始。
- 在显示 [RECORD] 后，它将变为 [REC]。



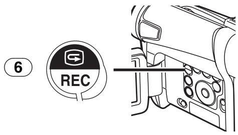
4 **再次按拍摄开始 / 停止按钮 (42) 暂停拍摄。**
- 显示 [PAUSE] 指示。



“运动 / 静止同步录制模式” 的录制
(仅 NV-GS15 型)
- 即使模式旋钮调在磁带录制模式上，而且磁带录制正在进行中，也可以通过按 [PHOTO SHOT] 按钮在卡上录制静态图像。

■ 检查拍摄

在拍摄暂停模式中，短暂地按 [ ] 按钮 (6)，可以回放所拍摄场景的最后几秒钟。



- 此时会出现 [CHK] 指示。检查完以后，摄像机将恢复拍摄暂停模式。

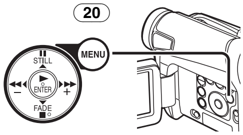
- 有关此项目的其它注释，请参阅 *-42-*。

■ 查找拍摄内容的结尾

(空白搜索功能)

空白搜索功能有助于快速找到磁带上所拍摄内容的结尾处。

1 设置 [TAPE RECORDING MENU] 或者 [TAPE PLAYBACK MENU] >> [INITIAL] >> [BLANK SEARCH] >> [YES]。



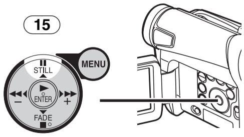
- 在空白搜索过程中，会出现 [BLANK] 指示。
- 在最后一次拍摄场景结束前约 1 秒钟，摄像机将切换到拍摄暂停模式或静态回放模式。
- 如果磁带中已没有空白，摄像机在磁带结尾处停止。

在完成前取消空白搜索

按 [■] 按钮。

■ 数码静态图像

当按 [STILL] 按钮 (15) 时，影像将变成静态图像。再次按该按钮，可取消数码静态图像模式。



- 建议在希望录制静态图像的位置先按 [STILL] 按钮，以便进入数码静态图像模式，然后再按 [PHOTO SHOT] 按钮。

■ 渐进拍照

当出现 [P] 指示时，渐进拍照功能可以运行。可以通过该功能将静态图像录制为更高质量的帧静态图像。

- 根据所使用的功能，渐进拍照功能可能不能激活。(*-41-*)

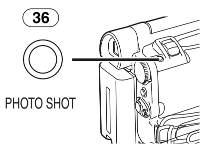
仅 NV-GS15 型：

- 要以更高质量录制静态图像，建议设置为卡录制模式。(无论使用什么功能，要激活渐进功能)
- 当同时录制磁带和卡时，渐进功能不能激活。

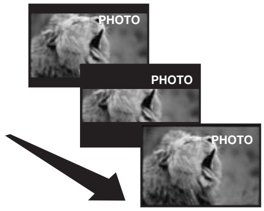
录制静态图像到磁带上 (拍照) (仅 NV-GS11 型)

可以通过摄像机镜头录制静态图像。

1 在拍摄暂停模式中，按 [PHOTO SHOT] 按钮 (36)。



- 摄像机拍摄了大约 7 秒钟的静态图像，然后切换回拍摄暂停模式。
- 如果将 [CAMERA] 子菜单上的 [SHTR EFFECT] 设置为 [ON]，便可以添加如同松开快门时的影像和声音。



- 拍照录制的影像质量会稍差一些。

■ 连续拍照

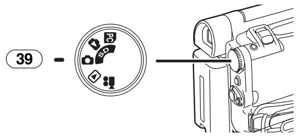
如果将 [CAMERA] 子菜单上的 [SHTR EFFECT] 设置为 [ON]，并且按住 [PHOTO SHOT] 按钮，摄像机将以 0.7 秒为间隔连续拍照静态图像，直到松开按钮。

- 屏幕闪烁，同时录下快门的咔嗒声。

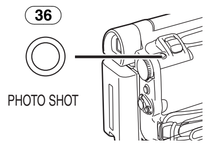
录制静态图像到卡上 (拍照) (仅 NV-GS15 型)

可以从摄像机将静态图像录制到记忆卡上。

1 设置模式旋钮 (39) 到卡录制模式。



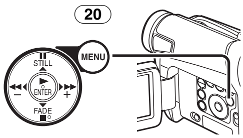
2 按 [PHOTO SHOT] 按钮 (36)。



- [PICTURE] 指示亮起为红色。

选择拍照影像的质量

1 设置 [CARD RECORDING MENU] >> [CARD] >> [PICT QUALITY] >> 所需的影像质量。



随附记忆卡 (8 MB) 上可录制的最大影像数

[FINE] (高影像质量)：大约 45 幅图像
[NORMAL] (普通影像质量)：大约 95 幅图像
[ECONOMY] (低影像质量)：大约 190 幅图像

- 以上数字取决于拍摄目标。

SD 记忆卡 (可选件) 上可录制静态图像的最大数量

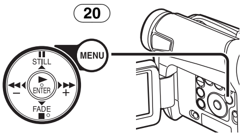
PICTURE QUALITY	FINE	NORMAL	ECONOMY
16 MB	100	200	400
32 MB	220	440	880
64 MB	440	880	1760
128 MB	880	1760	3520
256 MB	1760	3520	7040
512 MB	3520	7040	14080

- 以上数字取决于拍摄目标。

■ 连续拍照

可以以固定间隔在卡上录制静态图像。

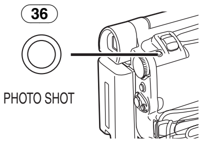
1 设置 [CARD RECORDING MENU] >> [CARD] >> [BURST MODE] >> [ON]。



- 此时会出现 [▭] 指示。



2 按 [PHOTO SHOT] 按钮 (36)。



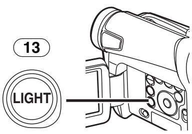
- 选择 [ON] 时，可以在大约 0.5 秒内的间隔拍摄静态图像，直到松开 [PHOTO SHOT] 按钮或拍摄完 10 幅图像。

- 有关此项目的其它注释，请参阅 *-42-*。

使用内置 LED 摄影灯拍摄

增强场景中自然色彩的亮度。增亮模式与内置 LED 摄影灯配合使用，可以增强光的亮度。

1 按 [LIGHT] 按钮 (13)。❶



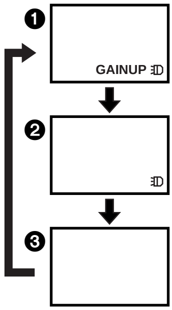
- 内置 LED 摄影灯点亮，增亮模式设置为打开。
- 增亮模式会比只打开 LED 摄影灯要亮，但会出现鬼影。

2 按 [LIGHT] 按钮 (13)。❷

- 将增亮模式设置为关闭。
- 使用此模式可消除鬼影。

3 按 [LIGHT] 按钮 (13)。❸

- LED 摄影灯关闭。
- 再次按 [LIGHT] 按钮返回到 ❶。



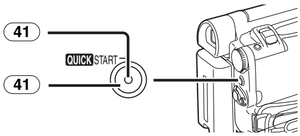
- 有关此项目的其它注释，请参阅 *-42-*。

快速启动

按 [QUICK START] 按钮 (41)，摄像机将在接通电源后约 1.3 秒内即做好拍摄准备。

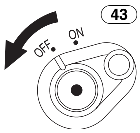
1 按 [QUICK START] 按钮 (41)。

- 快速启动拍摄灯 (41) 将亮起。



2 将 [OFF/ON] 开关 (43) 设置为 [OFF]。

- 快速启动拍摄灯将一直亮着。



3 将 [OFF/ON] 开关 (43) 设置为 [ON]。

- 摄像机将在大约 1.3 秒内做好摄录准备。

取消快速启动

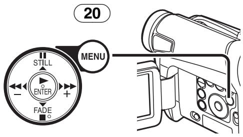
按住 [QUICK START] 按钮约 2 秒钟，确认快速启动拍摄灯已经熄灭。

- 有关此项目的其它注释，请参阅 *-42-*。

自拍器拍摄

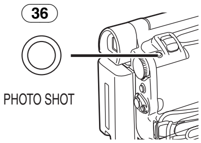
设置自拍器后 10 秒钟，摄录自动启动。

1 设置 [TAPE RECORDING MENU] 或 [CARD RECORDING MENU] (仅 NV-GS15 型) >> [CAMERA] >> [SELF TIMER] >> [ON]。



- 此时会出现 [ ] 指示。

2 按 [PHOTO SHOT] 按钮 (36)。



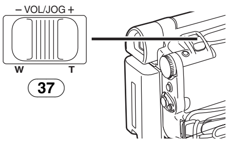
- [ ] 指示闪烁起来， 10 秒钟后开始拍摄。
- 也可以使用连续拍照。(仅 NV-GS15 型) (*-18-*)

- 有关此项目的其它注释，请参阅 *-42-*。

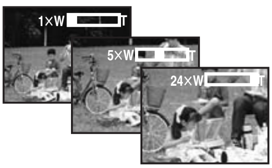
放大 / 缩小功能

通过近景或者广角拍摄，可以给图像造成特殊效果。

1 对于广角拍摄 (缩小)：
将 [W/T] 杆 (37) 推向 [W]。
对于特写镜头 (放大)：
将 [W/T] 杆推向 [T]。



- 变焦放大率指示会显示数秒钟。



■ 拍摄小物体的特写镜头

(大特写镜头功能)

当变焦放大率为 1× 时，摄像机可以聚焦于距镜头约 20 毫米的物体。用这个功能可以拍摄昆虫等小目标。

■ 使用变焦麦克风功能

使用变焦操作时，麦克风的方向角度和灵敏度随着所录声音而变化。

- 设置 [TAPE RECORDING MENU] >> [RECORDING] >> [ZOOM MIC] >> [ON]。
(此时会出现 [Z.MIC] 指示。)

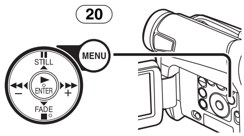


- 有关此项目的其它注释，请参阅 *-43-*。

数码变焦功能

当要对处于 1× 到 24× 放大率的正常变焦范围之外的目标进行特写镜头拍摄时，可使用此功能。使用数码变焦功能，可以选择 60× 到 800× 的放大率。

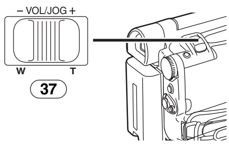
1 设置 [TAPE RECORDING MENU] >> [CAMERA] >> [D.ZOOM] >> [60×] 或 [800×]。



- 60×：数码变焦到 60×
- 800×：数码变焦到 800×



2 将 [W/T] 杆 (37) 推向 [W] 或者推向 [T]，进行放大或缩小。



取消数码变焦功能

设置 [TAPE RECORDING MENU] >> [CAMERA] >> [D.ZOOM] >> [OFF]。

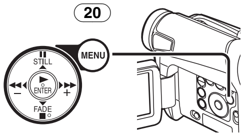
- 有关此项目的其它注释，请参阅 *-43-*。

影像稳定器功能

如果摄像机在拍摄时晃动，可以修正影像中的相机晃动。

●如果摄像机晃动幅度过大，可能无法稳定影像。

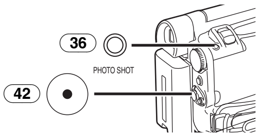
1 设置 [TAPE RECORDING MENU] >> [CAMERA] >> [SIS] >> [ON]。



●此时会出现 [ ] 指示。



2 按拍摄开始/停止按钮(42)或[PHOTO SHOT]按钮(36)，开始拍摄。



取消影像稳定器功能

设置 [TAPE RECORDING MENU] >> [CAMERA] >> [SIS] >> [OFF]。

●有关此项目的其它注释，请参阅 *-43-*。

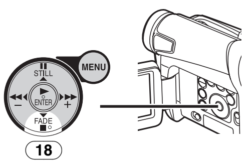
淡入 / 淡出功能

淡入

采用淡入功能，在一幕场景开始时，在黑屏幕上可逐渐显现影像并放出声音。

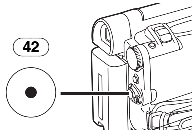


1 在拍摄暂停模式中，按住 [FADE] 按钮(18)。



●影像渐渐淡出。

2 在影像完全消失后，按拍摄开始 / 停止按钮(42)开始拍摄。

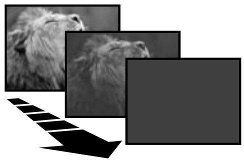


3 在开始录制后约3 秒钟，松开[FADE]按钮(18)。

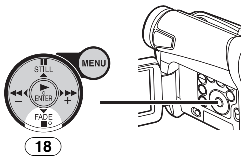
●影像再次渐渐显现。

淡出

采用淡出功能，可使影像和声音逐渐消失，最终在一幕场景的末尾显现一个黑屏幕。

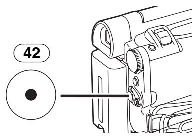


1 录制过程中，按住 [FADE] 按钮(18)。



●影像渐渐淡出。

2 在影像完全消失后，按拍摄开始 / 停止按钮(42)停止拍摄。



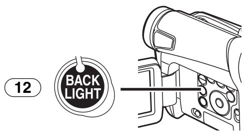
3 松开 [FADE] 按钮(18)。

●静态图像不能淡入或淡出。

逆光补偿功能

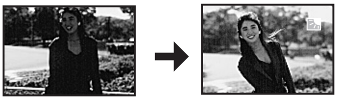
此功能用于防止目标在逆光环境中拍摄的过于黑暗。(逆光是指从拍摄目标背后照过来的光线。)

1 按 [BACK LIGHT] 按钮(12)。



●[ ] 指示闪烁，然后保持显示。

●整个屏幕将变得更亮。



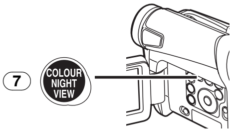
恢复正常拍摄
按 [BACK LIGHT] 按钮。

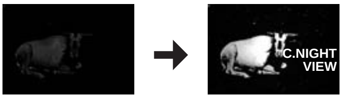
●有关此项目的其它注释，请参阅 *-43-*。

夜视功能

彩色夜视功能
使用此功能，可以在黑暗处拍摄明亮的彩色影像。

1 按 [COLOUR NIGHT VIEW] 按钮 ⑦。





●[C.NIGHT VIEW] 指示出现。

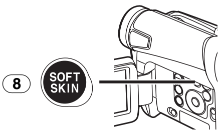
取消夜视功能
反复按 [COLOUR NIGHT VIEW] 按钮。

●有关此项目的其它注释，请参阅 *-43-*。

肌肤柔和功能

此功能可以以更加柔和的色调来拍摄皮肤颜色。为取得最佳效果，请避免背景颜色和拍摄对象的皮肤颜色相似。否则会使背景更弱缺乏清晰度。

1 按 [SOFT SKIN] 按钮 ⑧。



●此时会出现 [SOFT SKIN] 指示。



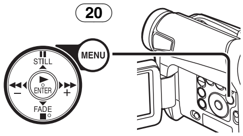
●为获得最佳效果，建议拍摄半身像，以便拍摄对象胸部以上全部进入屏幕。

取消肌肤柔和功能
按 [SOFT SKIN] 按钮。

消除风干扰功能

此功能可以消除摄录过程中风吹在麦克风上所造成的杂音。

1 设置 [TAPE RECORDING MENU] >> [RECORDING] >> [WIND CUT] >> [ON]。



●此时会出现 [WIND CUT] 指示。



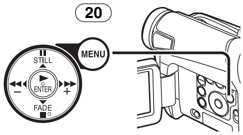
取消消除风干扰功能
设置 [TAPE RECORDING MENU] >> [RECORDING] >> [WIND CUT] >> [OFF]。

●有关此项目的其它注释，请参阅 *-43-*。

电影功能

此功能用于以类似电影屏幕的样式拍摄影像。

1 设置 [TAPE RECORDING MENU] >> [RECORDING] >> [CINEMA] >> [ON]。



●在屏幕的上方和下方出现黑色遮幅。



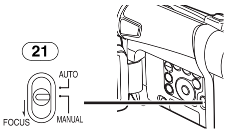
取消电影模式
设置 [TAPE RECORDING MENU] >> [RECORDING] >> [CINEMA] >> [OFF]。

●有关此项目的其它注释，请参阅 *-43-*。

特殊环境拍摄

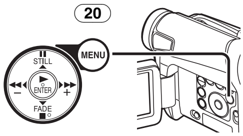
(程序自动曝光)
在特殊拍摄条件下，可以选择最佳自动曝光。

1 **将 [AUTO/MANUAL/FOCUS] 开关 (21) 设置为 [MANUAL]。**

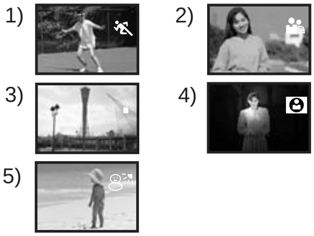


●此时会出现 [MNL] 指示。

2 **设置 [TAPE RECORDING MENU] 或 [CARD RECORDING MENU] (仅 NV-GS15 型) >> [CAMERA] >> [PROG.AE] >> 所需的模式 ([ ]、[ ]、[ ]、[ ] 或 [ ])。**



●此时会出现所选模式的指示。



1) **[ ] 运动模式**
●适于拍摄体育运动等涉及快速移动的场景。

2) **[ ] 肖像模式**
●适于使人物肖像清晰地显现在背景上。

3) **[ ] 低照度模式**
●适于把黑暗的场景拍摄得更亮些。

4) **[ ] 聚光灯模式**
●适于拍摄宴会、剧场等场合中聚光灯下的目标。

5) **[ ] 海滩及雪地模式**
●适于在滑雪场、海滩等耀眼环境中拍摄。

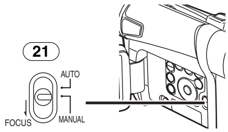
取消程序自动曝光功能
将 [CAMERA] 子菜单上的 [PROG.AE] 设置为 [OFF]。或将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO]。

●有关此项目的其它注释，请参阅 *-43-*。

自然色彩拍摄

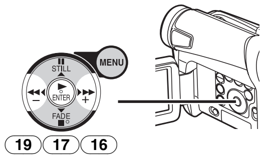
(白平衡)
由于场景或光线条件所限，自动白平衡调节模式可能无法实现自然色彩。在这种情况下，可以手动调节白平衡。
如果在镜头盖未取下的情况下打开摄像机，可能无法正常使用自动白平衡调节功能。请在取下镜头盖之后再打开摄像机。

1 **将 [AUTO/MANUAL/FOCUS] 开关 (21) 设置为 [MANUAL]。**



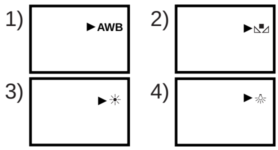
●此时会出现 [MNL] 指示。

2 **按 [ENTER] 按钮 (17)。**



●此时会出现 [AWB] 指示。

3 **按[▶▶]按钮(16)或[◀◀]按钮(19)，选择所需的白平衡模式。**



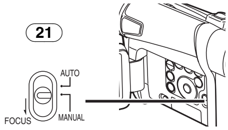
1) 自动白平衡调节 [AWB]
2) 先前手动设置的白平衡设置 [ ]
3) 户外模式 [ ]
4) 室内模式 (在白炽灯下拍摄) [ ]

恢复自动调节
按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19)，直到 [AWB] 指示出现。或将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO]。

手动调节白平衡

白平衡调节能够识别光线色彩并进行调节，使白色变为纯白。该款摄像机可以确定通过镜头和白平衡传感器所接收的光线色调，并由此判断拍摄条件，进而选择最接近的色调设置值。此功能称为自动白平衡调节。
对于超出自动白平衡调节范围的光线，请使用手动白平衡调节模式进行调节。

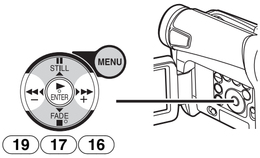
1 将 **[AUTO/MANUAL/FOCUS]** 开关 (21) 设置为 **[MANUAL]**。



●此时会出现 [MNL] 指示。

2 **将摄像机对准使整屏为白色的目标。**

3 **按 [ENTER] 按钮 (17)。**



●此时会出现 [AWB] 指示。

4 **按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19)，直到 [◣■◢] 指示出现。**



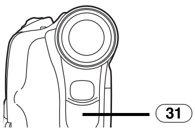
5 **按住 [ENTER] 按钮 (17)，直到 [◣■◢] 指示停止闪烁。**

恢复自动调节

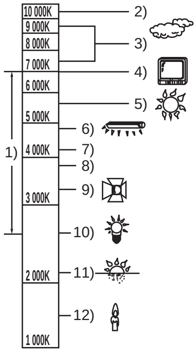
按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19)，直到显示 [AWB] 指示。或将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO]。

■ 关于白平衡传感器

白平衡传感器 (31) 在拍摄过程中测定光源的特性。



●拍摄中请勿用手遮挡白平衡传感器，因为白平衡将不能正常工作。



在超出自动白平衡调节的有效范围时，影像将显得偏红或偏蓝。即使在自动白平衡调节的有效范围内，如果有一个以上光源，自动白平衡调节也可能无法正常工作。在这种情况下，请调节白平衡。

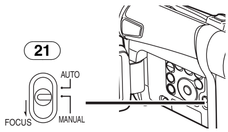
1) 此摄像机的自动白平衡调节的有效范围
2) 蓝天
3) 阴天 (下雨)
4) 电视机屏幕
5) 太阳光
6) 白色荧光灯
7) 日出后 2 小时或日落前 2 小时
8) 日出后 1 小时或日落前 1 小时
9) 卤光灯
10) 白炽灯
11) 日出或日落
12) 烛光

●有关此项目的其它注释，请参阅 *-43-*。

手动快门速度调节

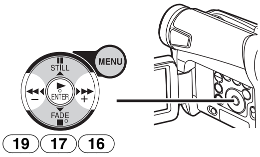
此功能在拍摄快速移动物体时很有用。

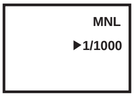
1 将 **[AUTO/MANUAL/FOCUS]** 开关 (21) 设置为 **[MANUAL]**。



●此时会出现 [MNL] 指示。

2 按 [ENTER] 按钮 (17)，直到出现快门速度指示。





3 按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19) 调节快门速度。

快门速度调节的范围

磁带录制模式下为 1/50-1/8000 秒
卡录制模式下为 1/50-1/500 秒 (仅 NV-GS15 型)
标准快门速度为 1/50 秒。
选择的速度越接近 [1/8000]，快门速度越快。

恢复自动调节

将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO]。

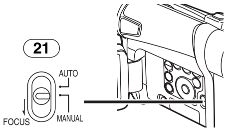
- 有关此项目的其它注释，请参阅 *-43-*。

手动光圈调节

(F 值)

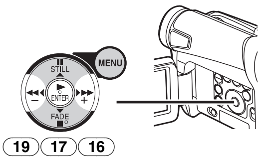
当屏幕太亮或太暗时，可以使用此功能。

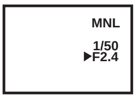
1 将 [AUTO/MANUAL/FOCUS] 开关 (21) 设置为 [MANUAL]。



- 此时会出现 [MNL] 指示。

2 按 [ENTER] 按钮 (17)，直到出现光圈指示。





3 按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19) 调节光圈。

光圈调节的范围

CLOSE (关闭)， F16，…， F2.0，
OP (打开) +0dB， ...， OP+18dB
选择的数值越接近 [CLOSE]，影像将变得越暗。
选择的数值越接近 [OP+18dB]，影像将变得越亮。
+dB 前的数值表示增亮值。如果此数值太大，影像质量会下降。

恢复自动调节

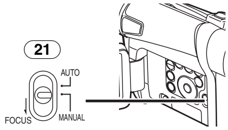
将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO]。

- 有关此项目的其它注释，请参阅 *-44-*。

手动焦距调节

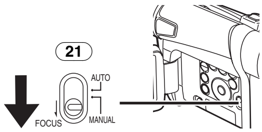
在自动调焦不能正常工作的情况下，可以手动调节焦距。

1 将 [AUTO/MANUAL/FOCUS] 开关 (21) 设置为 [MANUAL]。



- 此时会出现 [MNL] 指示。

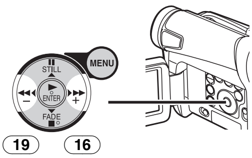
2 滑动 [AUTO/MANUAL/FOCUS] 开关 (21) 到 [FOCUS]。



- 此时会出现 [▶MF] 指示 (手动调焦模式)。



3 按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19) 调节焦距。



- 如果持续按 [▶▶] 按钮或 [◀◀] 按钮，调节的速度变得更快。

恢复自动调节

将 [AUTO/MANUAL/FOCUS] 开关设置为 [AUTO] 或 [FOCUS]。

数码特效功能

摄像机具有数码特效功能，可以给场景添加特殊效果。

数码特效 1 [EFFECT1]

1) MULTI

2) P-IN-P

3) WIPE

4) MIX

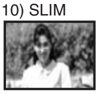
5) STROBE

6) TRAIL

7) MOSAIC

8) MIRROR

9) STRETCH

10) SLIM


1) 多画面模式 [MULTI]
2) 画中画模式 [P-IN-P]
3) 擦去模式 [WIPE]
4) 混合模式 [MIX]
5) 频闪模式 [STROBE]
   ●以这种模式拍摄的影像具有频闪效果。
6) 拖曳效果模式 [TRAIL]
   ●以这种模式拍摄的影像具有拖曳效果。
7) 马赛克模式 [MOSAIC]
   ●生成马赛克式的影像。
8) 镜像模式 [MIRROR]
   ●右半部分影像成为左半部分影像的镜像。
9) 拉伸模式 [STRETCH]
   ●图像水平拉大。
10) 狭长模式 [SLIM]
   ●图像垂直拉大。

数码特效 2 [EFFECT2]

11) NEGA

12) SEPIA

13) B/W

14) SOLARI


11) 负片模式 [NEGA]
   ●所拍摄影像的色彩都被颠倒为相反的颜色，就像是一个负片。
12) 褐色模式 [SEPIA]
   ●拍摄的场景泛褐色，产生老照片的效果。
13) 黑白模式 [B/W]
   ●拍摄的影像为黑白片。
14) 白化模式 [SOLARI]
   ●以这种模式拍摄的影像具有绘画效果。

选择所需的数码特效

设置[TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] 或 [EFFECT2] >> 所需的数码特效。

取消数码特效

设置 [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] 或 [EFFECT2] >> [OFF]。
●如果关闭摄像机，则取消 [EFFECT2] 设置。

●有关此项目的其它注释，请参阅 *-44-*。

■ 多画面模式

频闪多画面模式：



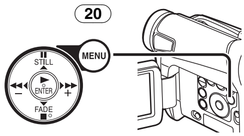
可以捕捉和拍摄 9 幅小的连续静态图像。

手动多画面模式：



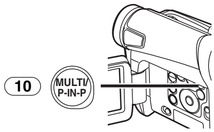
可以手动捕捉和拍摄 9 幅小的静态图像。

1 设置 [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [MULTI]。



2 设置 [TAPE RECORDING MENU] >> [DIGITAL] >> [MULTI MODE] >> [STROBE] 或 [MANUAL]。

3 按 [MULTI] 按钮 (10)。



●如果选择 [MANUAL]，请对要捕捉的每个场景按 [MULTI] 按钮。

删除所有已捕捉的多画面

在显示 9 幅多画面时，按 [MULTI] 按钮。
●如果已选择 [MANUAL]，请在显示 9 幅画面后，按 [MULTI] 按钮。

再次显示多画面

按 [MULTI] 按钮 1 秒钟或更长时间。

逐幅删除多画面

(在 [MANUAL] 模式下捕捉图像时)

在显示静态图像时，按下 [MULTI] 按钮 1 秒钟或更长时间，将依次删除上次捕捉的各个画面。
●静态图像被逐幅删除后，将无法再显示。

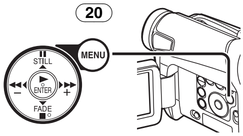
●有关此项目的其它注释，请参阅 *-44-*。

■ 画中画模式

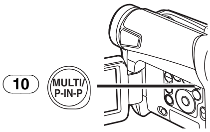


可以在屏幕中显示一个子屏幕 (静态图像)。

1 设置 [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [P-IN-P]。



2 将摄像机对准要捕捉的场景，然后按 [P-IN-P] 按钮 (10) 插入一个小的静态图像。



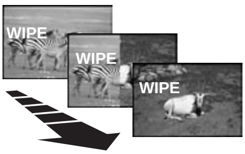
- 在正常图像中将出现一个小的静态图像。
- 如果再次按 [P-IN-P] 按钮，则会清除小的静态图像。

● 有关此项目的其它注释，请参阅 *-44-*。

■ 擦去模式和混合模式

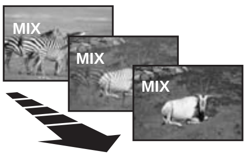
擦去模式：

象拉窗帘一样，上次摄录场景的静态图像逐渐变为新场景的动态影像。

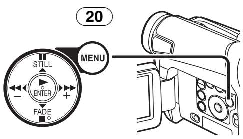


混合模式：

当新场景中的动态影像渐现时，上次摄录场景的静态影像渐隐。

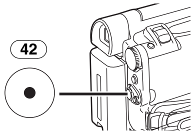


1 设置 [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [WIPE] 或 [MIX]。



- 此时出现 [WIPE] 或 [MIX] 指示。

2 按拍摄开始 / 停止按钮 (42) 开始拍摄。



3 按拍摄开始 / 停止按钮 (42) 暂停拍摄。

- 最后一个场景保存在存储器中。[WIPE] 或 [MIX] 指示变为 [WIPE] 或 [MIX]。

4 按拍摄开始 / 停止按钮 (42) 重新开始拍摄。

- 上一场景的最后影像逐渐变为新场景。

● 有关此项目的其它注释，请参阅 *-44-*。

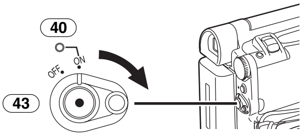
回放模式

回放磁带

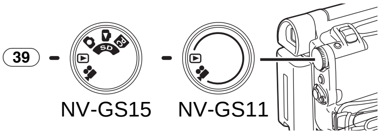
拍摄之后可以立即回放拍摄的场景。

1 将 [OFF/ON] 开关 (43) 设置为 [ON]。

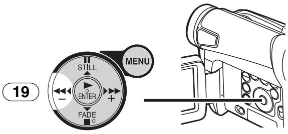
●[POWER] 指示灯 (40) 亮起。



2 将模式旋钮 (39) 设置为磁带回放模式。



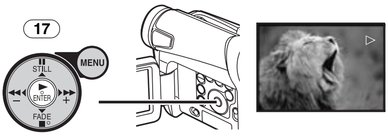
3 按 [◀◀] 按钮 (19)，倒转磁带。



●把磁带倒回要开始回放的地方。
●当磁带到达开头时，倒带会自动停止。

4 按 [▶] 按钮 (17)，开始回放。

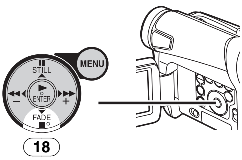
●[▷] 指示出现。



●如果回放录制时带有版权保护信号的磁带，图像会呈马赛克状失真。

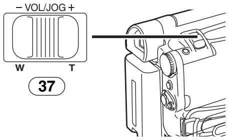
停止回放

按 [■] 按钮 (18)。

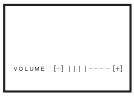


■ 调节音量

要调节音量时，请推动 [W/T] 杆 (37) 来显示 [VOLUME] 指示。请向 [T] 推动 [W/T] 杆可增大音量，或向 [W] 推动 [W/T] 杆可减小音量。调节结束后 [VOLUME] 指示消失。



要使用遥控器调节音量，请按 [T] 或 [W] 按钮来显示 [VOLUME] 指示。按 [T] 按钮可增大音量，或按 [W] 按钮可减小音量。调节结束后 [VOLUME] 指示消失。

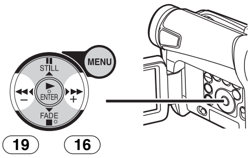


●在回放变焦模式下，不能使用遥控器调节音量。(*-29-*)

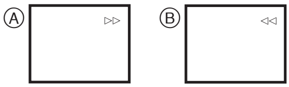
●有关此项目的其它注释，请参阅 *-44-*。

查找要回放的场景

■ 快进搜索 / 倒带搜索回放



如果在回放中按 [▶▶] 按钮 (16) 或 [◀◀] 按钮 (19)，将变为快进搜索回放 Ⓐ 或倒带搜索回放 Ⓑ。



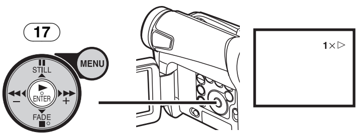
●如果按住此按钮不放，则变为快进搜索回放或倒带搜索回放，直到松开为止。

■ 变速搜索功能

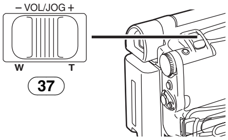
可以改变快进搜索回放或倒带搜索回放的速度。

1 回放过程中，按 [▶] 按钮 (17)。

●会出现 [1×▷] 指示。



2 推动 [W/T] 杆 (37)，选择所需的搜索速度。



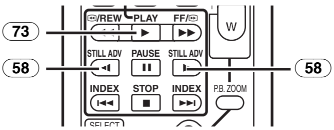
变速搜索功能在快进和倒带两个方向上均可使用以下 6 种回放速度：
1/5×(慢动作回放，仅限 SP 模式)、 1/3×(慢动作回放，仅限 LP 模式）、1×、2×、5×、10× 和 20×。
- 按遥控器上的 [VAR. SEARCH] 和光标按钮 ([▲，▼]) 可使用此功能。(*-6-*)

恢复正常回放
按 [▶] 按钮 (17)。

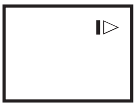
- 在快进搜索回放或倒带搜索回放时，快速移动的影像可能会出现马赛克状干扰。
- 搜索中没有声音。

慢动作回放

此摄像机可以进行慢速回放。



1 按 [▶] 按钮 (73)。
2 按遥控器上的 [◂I] 按钮或 [I▸] 按钮 (58)。
- 会出现 [I▷] 或 [◁I] 指示。



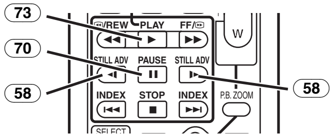
- 按 [◂I] 按钮时，慢动作回放向后退方向行进。按 [I▸] 按钮时，慢动作回放向前进方向行进。

以 SP 模式拍摄的场景在回放时速度大约为正常值的 1/5。
以 LP 模式拍摄的场景在回放时速度大约为正常值的 1/3。

恢复正常回放
按 [▶] 按钮 (73)。
- 如果摄像机被留置在慢动作回放模式下的时间超过 12 分钟，摄像机将切换到停止模式，以防止摄像头过度磨损和拉扯。

静态回放 / 静态前进回放

摄像机可以进行静态图像回放和逐帧向前回放。



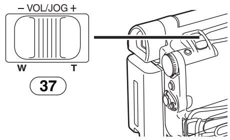
1 按 [▶] 按钮 (73)。
2 按 [❚❚] 按钮 (70)。
- 在静态回放模式下停止回放影像。

3 按遥控器上的 [◂I] 按钮或 [I▸] 按钮 (58)。
- 每按一次 [◂I] 按钮，静态图像向后退方向行进。每按一次 [I▸] 按钮，静态图像向前进方向行进。如果连续按其中任一按钮，静态图像将连续地每次行进 1 帧，直到松开此按钮。

恢复正常回放
按 [▶] 按钮 (73)。

■ 用变焦杆回放

在静态回放模式中，推动摄像机的 [W/T] 杆 (37)，可以使静态图像每次向前或向后行进一帧。
如果持续推动杆，静态图像会连续不断地前进。



- 如果摄像机被留置在静态回放模式下的时间超过 6 分钟，摄像机将切换到停止模式，以防止摄像头过度磨损和拉扯。

索引搜索功能

为了便于搜索所需场景，该款摄像机会在拍摄中自动记录索引信号。具体过程如下：

拍照索引信号

NV-GS11:
在用拍照模式拍摄静态图像时，将自动记录这些信号。(*-17-*) 拍照索引信号不能记录在以连续拍照模式拍摄的静态图像上。

NV-GS15:
当将卡中的静态图像录制到磁带上时，这些信号将被自动录制。

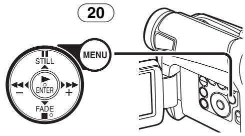
场景索引信号
在插入磁带并开始拍摄后，将自动开始记录场景索引信号。
- 如果 [TAPE RECORDING MENU] 上的 [RECORDING] 子菜单的 [SCENE INDEX] 设置为 [2HOUR]，当拍摄在 2 小时或更长时间后重新开始时，将记录一个索引信号。如果设置为 [DAY]，则自上次拍摄以来日期改变后重新开始拍摄时，将记录索引一个信号。(在记录索引信号时， [INDEX] 指示会闪烁数秒钟。)



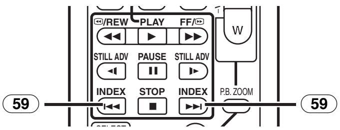
- 如果摄像机从磁带回放模式切换到磁带录制模式，或日期和时间在拍摄前已设定，则不记录索引信号。

■ 拍照索引搜索

1 设置 [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [SEARCH] >> [PHOTO]。



2 按遥控器上的 [▶▶|] 按钮或 [|◀◀] 按钮 (59)。



- 每按一次相应按钮，都会搜索在拍照模式下拍摄的静态图像。
- 声音可回放约 4 秒钟。

■ 场景索引搜索

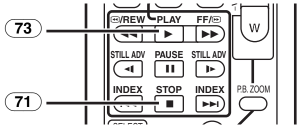
1 设置 [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [SEARCH] >> [SCENE]。

2 按遥控器上的 [▶▶|] 按钮或 [|◀◀] 按钮 (59)。
- 每按一次相应按钮，[S 1] 指示都会出现，并开始搜索标有索引信号的后续场景。场景索引搜索开始后，每按一次按钮，所显示的指示将从 [S 2] 一直变到 [S 9]，并搜索对应于所选号码的场景的开始。



- 最多可以选择 9 个场景号。

连续索引搜索
如果按 [▶▶|] 按钮或 [|◀◀] 按钮 (59) 2 秒或更长时间，则搜索连续进行，相邻搜索间间隔数秒。(要取消连续索引搜索，请按 [▶] 按钮 (73) 或 [■] 按钮 (71)。)

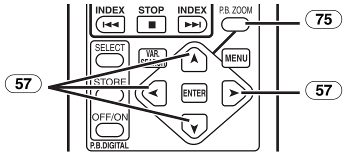


- 有关此项目的其它注释，请参阅 -44-。

回放变焦功能

在回放中，影像的一部分最大可放大 10 倍。

1 回放时，按遥控器上的 [P.B. ZOOM] 按钮 (75)。

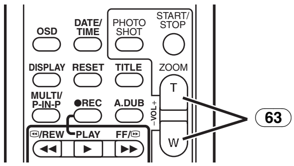


- 影像的中心部分可放大约 2 倍。



更改变焦放大率

2 按遥控器上的[W]按钮或[T]按钮 (63)，更改放大比例。



更改影像的放大区域

3 按遥控器上指向要放大区域的箭头按钮 (▲，▼， ◀， ▶) (57)。

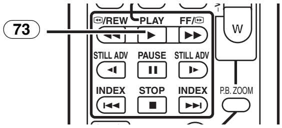
取消回放变焦功能
按遥控器上的 [P.B. ZOOM] 按钮 (75)。

- 有关此项目的其它注释，请参阅 -44-。

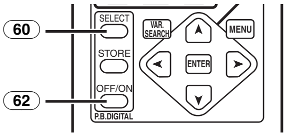
回放数码特效功能

回放中，可以向已拍摄的图像添加数码特效。可以获得与拍摄中所使用的数码特效 1 和 2 相同的效果。

1 按 [▶] 按钮 73。



2 按遥控器上的 [SELECT] 按钮 60，选择所需的数码特效。



- 重复按 [SELECT] 按钮，将改变数码特效的选择。
- 使用 [TAPE PLAYBACK MENU] 上的 [EFFECT SEL] 子菜单，也可实现相同的设置。

暂停回放数码特效

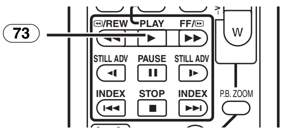
按 [OFF/ON] 按钮 62，可暂停或重新启用数码特效。当暂时停用数码特效时，所选效果的指示会闪烁。

取消数码特效

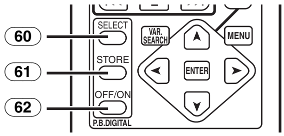
按遥控器上的 [SELECT] 按钮 60，然后清除数码特效指示。

■ 擦去模式和混合模式

1 按 [▶] 按钮 73。



2 按遥控器上的 [SELECT] 按钮 60，然后选择 [WIPE] 或 [MIX]。



3 要把影像作为静态图像保存时，按 [STORE] 按钮 61。
- 此时会出现 [WIPE] 或 [MIX] 指示，影像被保存。

4 在需要使用擦去或混合效果的场景中，按 [OFF/ON] 按钮 62。
- 场景由于擦去或混合效果而发生变化。

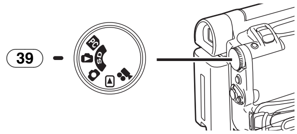
- 擦去或混合功能只能在回放中通过遥控器使用。
- 正在使用擦去或混合特效时，如果按 [OFF/ON] 按钮 62，特效将在此时暂停。再次按 [OFF/ON] 按钮 62 可恢复此特效。

- 有关此项目的其它注释，请参阅 *-44-*。

*回放卡 (仅 **NV-GS15** 型)*

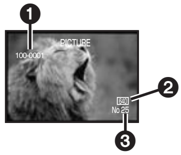
用于回放录制在卡中的文件。

1 将模式旋钮 39 设置为图像回放模式。



2 开始回放。

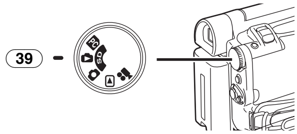
▶: 开始幻灯放映
▶▶: 播放下一幅图像
◀◀: 播放上一幅图像
■: 停止幻灯放映
❚❚: 暂停放映幻灯



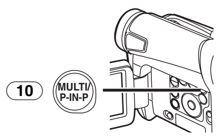
❶ 文件夹文件号
❷ 图像尺寸 (*-40-*)
❸ 文件号

选择所需的文件并回放

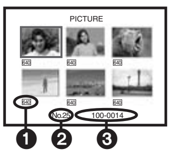
1 将模式旋钮 39 设置为图像回放模式。



2 按 [MULTI] 按钮 10。

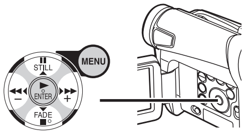


- 卡中录制的文件以多画面模式显示。



❶ 图像尺寸
❷ 文件号
❸ 文件夹文件号

3 按 **[❚❚/■/◀◀/▶▶]** 按钮，选择所需的文件。



●所选文件被标记上图框。

4 按 **[ENTER]** 按钮 (17) 或 **[MULTI]** 按钮 (10)。

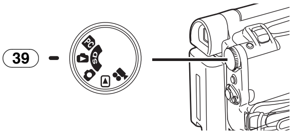
●所选文件以全屏显示。

●有关此项目的其它注释，请参阅 *-44-*。

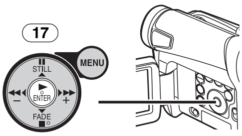
幻灯放映 (仅 NV-GS15 型)

卡中录制的静态图像可以像放映幻灯一样回放。

1 将模式旋钮 (39) 设置为图像回放模式。



2 按 **[▶]** 按钮 (17)。



●[SLIDE▷] 指示出现。



●每回放一个图像需要数秒钟时间。

暂停幻灯放映

按 [❚❚] 按钮。

●[SLIDE❚❚] 指示出现。



停止放映幻灯

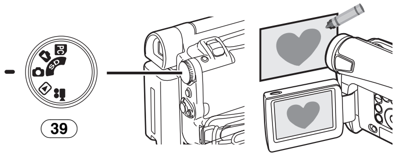
按 [■] 按钮。

●有关此项目的其它注释，请参阅 *-44-*。

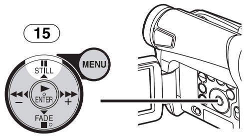
创建标题 (仅 NV-GS15 型)

可以在卡上创建标题和记录。

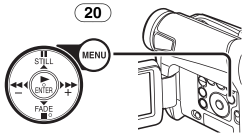
1 录制模式：
将模式旋钮 (39) 设置为磁带录制模式或卡录制模式。
将镜头对准用于创建标题的影像。



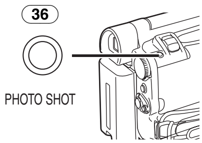
1 磁带回放模式：
搜索用于创建标题的影像，并将摄像机设置为静态回放模式。



2 设置 **[CARD] >> [CREATE TITLE] >> [YES]**。



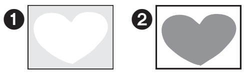
3 按 **[PHOTO SHOT]** 按钮 (36)。



●标题被存储。
●要再次拍照，请选择 [RETURN]。

4 选择 **[LUMINANCE]** 并按 **[ENTER]** 按钮 (17)，然后按 **[▶▶]** 按钮 (16) 或 **[◀◀]** 按钮 (19) 调整标题的对比度，然后按 **[ENTER]** 按钮 (17)。

5 按 **[▶▶]** 按钮 (16) 或 **[◀◀]** 按钮 (19) 调整颜色，然后按 **[ENTER]** 按钮 (17)。



●此时不显示影像的黑暗部分 ❶，而明亮部分的色彩以黑、蓝、绿、青、红、洋红、黄和白色的顺序变化，此后，不显示影像的明亮部分 ❷，黑暗部分的色彩以上述顺序变化。

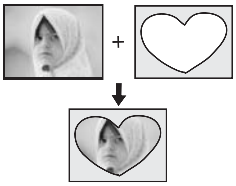
6 选择 **[RECORDING]** 并按 **[ENTER]** 按钮 (17)。

●标题即录制在卡中。

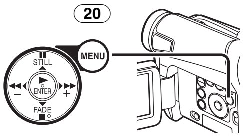
●有关此项目的其它注释，请参阅 *-44-*。

添加标题 (仅 NV-GS15 型)

可为图像添加标题。在磁带 / 卡录制模式和磁带 / 图像回放模式下显示。

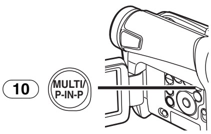


1 设置 [DIGITAL] >> [TITLE IN] >> [ON]。

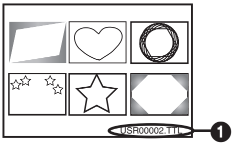


2 按 [MENU] 按钮 (20)。
- 显示出标题。

3 按 [MULTI] 按钮 (10)。

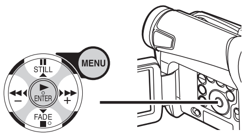


- 此时出现一个标题列表。



- 文件名称 ❶

4 按 [❚❚/■/◀◀/▶▶] 按钮，选择所需的标题。



- 所选标题标有图框。

5 按 [ENTER] 按钮 (17) 或按 [MULTI] 按钮 (10)。
- 显示所选标题。
- 可以对带标题的图像进行摄录和拍照。

- 通过推动遥控器上的 [TITLE] 按钮也可以显示标题。

清除标题显示

设置 [DIGITAL] >> [TITLE IN] >> [OFF]。
或按遥控器上的 [TITLE] 按钮 (67)。

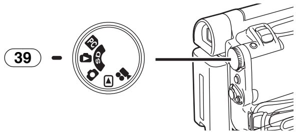
- 有关此项目的其它注释，请参阅 *-44-*。

将打印数据写入卡中 (仅 NV-GS15 型)

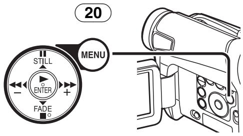
(DPOF 设置)

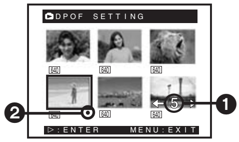
可以将要打印的影像数量等 DPOF 设置打印数据 (DPOF 设置) 写入卡中。“DPOF”表示数码打印指令格式。

1 将模式旋钮 (39) 设置为图像回放模式。



2 设置 [PICTURE PLAYBACK MENU] >> [EDITING] >> [DPOF SET] >> [YES] >> [VARIABLE]。





- 不打印全部影像时，请选择 [ALL 0]。

3 选择所需的图像，然后按 [ENTER] 按钮 (17)。
- 所选图像标有图框。
- 显示 DPOF❶ 设置的打印数量。

4 按[▶▶]按钮(16)或[◀◀]按钮(19)选择要打印的图像号，然后按 [ENTER] 按钮 (17)。
- [●] 指示 ❷ 显示在图像设置上。(*-40-*)

5 重复步骤 3 和 4，完成设置后按 [MENU] 按钮 (20)。

检验 DPOF 设置

在步骤 2 中选择 [VERIFY]。将连续回放在 DPOF 中设置的 1 项或多项打印的图像。

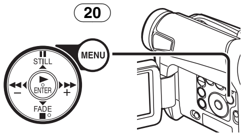
- 有关此项目的其它注释，请参阅 *-45-*。

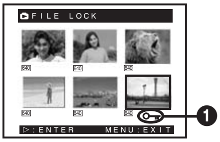
保护卡上的文件 (仅 NV-GS15 型)

(锁定设置)

可将以前录制在卡中的文件锁定以防止意外删除。(即使锁定了文件，如果对卡进行格式化，仍会将其删除。)

1 设置 [PICTURE PLAYBACK MENU] >> [EDITING] >> [FILE LOCK] >> [YES]。





2 选择要锁定的文件，然后按 [ENTER] 按钮 (17)。
- 所选文件被锁定，且出现 [O‒π] 指示 ❶。重复此过程，可锁定 2 个或多个文件。
- 再次按 [ENTER] 按钮 (17) 可取消锁定。

- SD 记忆卡具有写保护开关。(*-45-*)

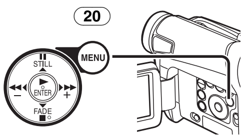
- 有关此项目的其它注释，请参阅 *-45-*。

删除在卡上录制的文件 (仅 NV-GS15 型)

使用摄像机，可以删除录制在卡上的文件。文件删除后将无法恢复。

选择并删除文件或标题

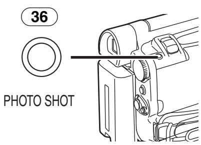
1 设置 [PICTURE PLAYBACK MENU] >> [DELETE] >> [FILE BY SEL] >> [YES]。



- 要删除 [PICTURE PLAYBACK MENU] 中的标题，请选择 [TITLE BY SEL]。

2 选择要删除的文件，然后按 [ENTER] 按钮 (17)。
- 所选图像标有图框。
- 要删除 2 个或多个文件，请重复此步骤。

3 按 [PHOTO SHOT] 按钮 (36)。

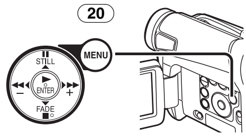


- 出现确认信息。

4 选择 [YES] 并按 [ENTER] 按钮 (17)。
- 所选文件即从卡上删除。
- 如果选择 [NO]，则取消文件选择。

选择并删除全部文件

1 设置 [PICTURE PLAYBACK MENU] >> [DELETE] >> [ALL FILES] >> [YES]。



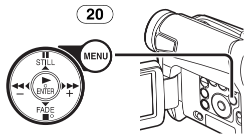
- 出现确认信息。

2 选择 [YES] 并按 [ENTER] 按钮 (17)。
- 这样将删除图像回放模式的全部文件。
- 不能删除已锁定的文件。
- 如果卡片上有许多文件，删除时可能需要几分钟。

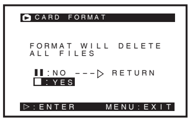
格式化卡 (仅 NV-GS15 型)

如果摄像机不能读取卡中数据，可将其格式化重新使用。格式化将删除卡中录制的全部数据。

1 设置 [PICTURE PLAYBACK MENU] >> [EDITING] >> [CARD FORMAT] >> [YES]。



- 出现确认信息后，选择 [YES] 即开始执行格式化。



- 格式化完成后，屏幕变白。

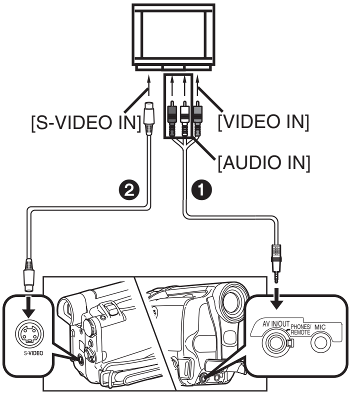
- 使用本摄像机格式化的卡可能无法在其它机器上使用。在这种情况下，可在要使用此卡的机器上对此卡进行格式化。在格式化之前，应确保将珍贵的图像存储到个人计算机中。
- 用其它设备格式化的卡 (例如个人计算机) 可能无法使用，或录制需要更多的时间。建议使用本机对卡进行格式化。

在电视上回放

把摄像机连接到电视机，可以从电视屏幕上观看所拍摄的场景。

●连接前，请务必切断摄像机和电视机的电源。

1 把摄像机的[AV IN/OUT]插孔连接到电视机的视频和音频输入插孔中。

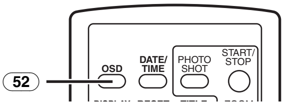


●使用 AV 电缆 ❶，与电视机相连。如果电视机有 S-Video 插孔，请同时连接 S-Video 电缆 ❷。

●将 AV 电缆的针式插头插入 [AV IN/OUT] 插孔时，需尽量将其插到底。

使指示出现在电视屏幕上

按遥控器上的 [OSD] 按钮 (52)。



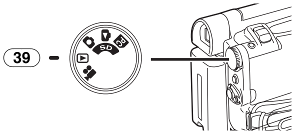
●有关此项目的其它注释，请参阅 *-45-*。

编辑模式

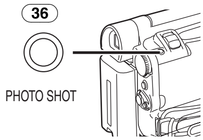
从磁带上录制到卡中 (仅 NV-GS15 型)

可以选取已经录制在磁带中的场景，将静态图像录制在记忆卡中。

1 将模式旋钮 (39) 设置为磁带回放模式。



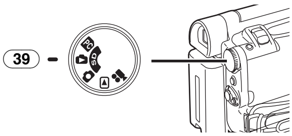
2 开始回放，并在出现要录制场景时将摄像机设置为静态回放模式，然后按下 [PHOTO SHOT] 按钮 (36)。



从卡上将图像录制到磁带中 (仅 NV-GS15 型)

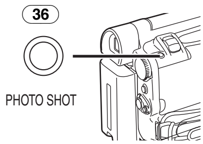
卡影像可录制到磁带上。

1 将模式旋钮 (39) 设置为图像回放模式。



2 显示第一幅图像。

3 按 [PHOTO SHOT] 按钮 (36)。



- 复制过程中会出现以下指示。



- 将图像录制到磁带需要几秒钟的时间。
- 录制到磁带时，请在录制前选择磁带位置。在步骤 3 中按下 [PHOTO SHOT] 按钮，会将图像录制到磁带位置。
- 拍照索引信号将被自动录制。

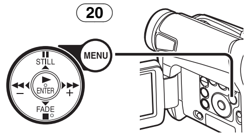
- 有关此项目的其它注释，请参阅 *-45-*。

配音

可以在拍摄的磁带中添加音乐或解说。

- 如果以 [16bit] 模式拍摄的磁带用配音功能进行配音，原始声音将被抹掉。(如果希望保留原始声音，在拍摄时请使用 [12bit] 模式。)
- 在 LP 模式下拍摄，不能使用配音。(*-15-*)

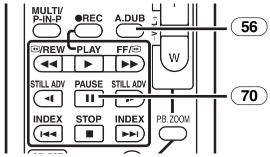
1 设置 [TAPE PLAYBACK MENU] >> [AV IN/OUT] >> [AV JACK] >> [IN/OUT]。



2 继续上述的设置，选择 [A.DUB INPUT] >> [MIC] 或 [AV IN]。

- 使用外部设备时，设置为 [AV IN]；使用外部或内置麦克风时，设置为 [MIC]。

3 在需要添加新声音的地方，按遥控器上的 [❚❚] 按钮 (70) 。



4 按遥控器上的 [A.DUB] 按钮 (56)。

5 要开始配音，按遥控器上的 [❚❚] 按钮 (70)。

取消配音

按遥控器上的 [❚❚] 按钮 (70)。
摄像机再次回到静态回放模式。

回放 12 位配音录制的声音

设置 [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [12bit AUDIO] >> [ST2] 或 [MIX]。
ST1：只回放原始声音。
ST2：只回放配音。
MIX：同时回放原始声音和配音。

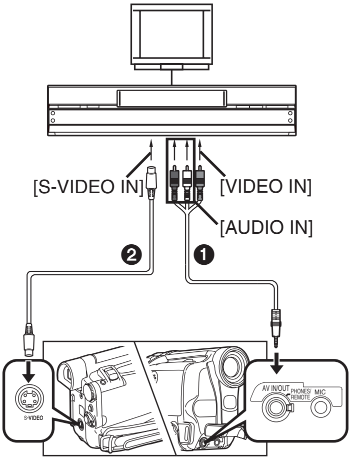
在听取预先录制的声音时配音

暂停配音后，将 [PLAYBACK] 子菜单上的 [12bit AUDIO] 设置为 [ST2]，这样即可检查预先录制的声音。
使用麦克风进行配音时，请在配音中，使用耳机听取预先录制的声音。（使用头戴耳机时，请将 [AV IN/OUT] 或 [INITIAL] 子菜单的 [AV JACK] 设定为 [OUT/PHONES]。）当使用线路输入时，可以一边从扬声器听取预先录制的声音，一边进行配音。

- 有关此项目的其它注释，请参阅 *-45-*。

复制到 S-VHS(或 VHS) 磁带

(复制)
按照说明将摄像机与 VCR 连接后，执行以下步骤。



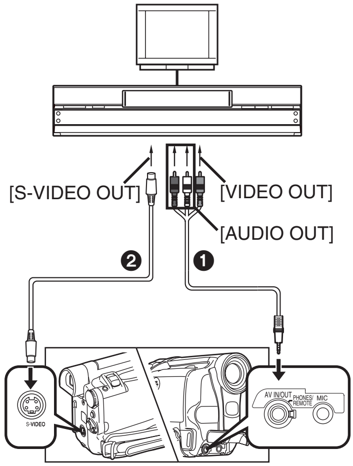
❶AV 电缆
❷S-Video 电缆 (不随附)
- 确认在复制前按了遥控器上的 [OSD] 按钮 (*-6-*)，这样就看不到任何指示。否则，所显示的磁带计数器和功能指示也会同时被复制。

摄像机：
1 **插入已录制的磁带。**
VCR：
2 **插入带有删除保护舌片的未录制磁带。**
- 如果要求不同的设置 (如外部输入、磁带速度等)，请参阅 VCR 的使用说明书。

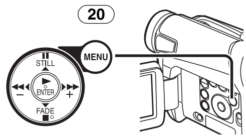
摄像机：
3 **按 [▶] 按钮，开始回放。**
VCR：
4 **开始录制。**
5 **按暂停或停止按钮，停止录制。**
摄像机：
6 **按 [■] 按钮，停止回放。**

录制其它设备的内容

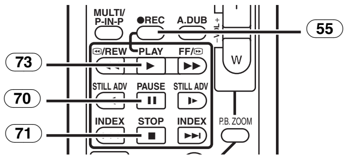
将摄像机与其它设备如插图所示连接，然后执行以下步骤。



❶AV 电缆
❷S-Video 电缆 (不随附)
摄像机：
1 **设置 [TAPE PLAYBACK MENU] >> [AV IN/OUT] >> [AV JACK] >> [IN/OUT]。**



2 **插入一个未录制的磁带。**
其它设备：
3 **插入一个已经录制的磁带，开始回放。**
摄像机：
4 **按 [●REC] 按钮的同时 (55)，按 [▶] 按钮 (73)。或者按 [REC] 按钮 (6) 时，按摄像机上的 [BACK LIGHT] 按钮 (12)。**



- 当在卡上录制时，按 [PHOTO SHOT] 按钮。(仅 NV-GS15 型)

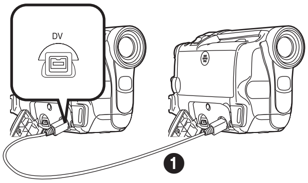
5 **按 [❚❚] 按钮 (70) 或 [■] 按钮 (71)，停止录制。**
其它设备：
6 **按停止按钮，停止回放。**

- 有关此项目的其它注释，请参阅 *-45-*。

使用 DV 电缆进行录制

(数码复制)

使用 DV 电缆 VW-CD1E (可选件) ❶，可以将此摄像机与其它有 DV 输入 / 输出终端的其它数码视频设备进行连接，以便以数码格式进行复制。

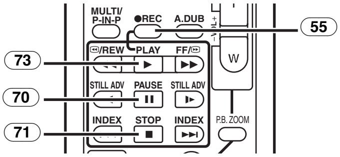


播放机 / 录像机：

1 插入磁带并设置为磁带回放模式。

播放机：

2 按 [▶] 按钮 (73) 开始回放。



录像机：

3 按 [●REC] 按钮的同时 (55)，按遥控器上的 [▶] 按钮 (73)。
或按 [REC] 按钮 (6) 的同时，按 [BACK LIGHT] 按钮 (12)。

- 录制开始。

停止复制

按 [❚❚] 按钮 (70) 或 [■] 按钮 (71)。

- 有关此项目的其它注释，请参阅 *-45-*。

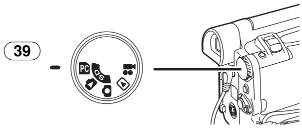
关于个人计算机

向个人计算机输入静态图像 (仅 NV-GS15 型)

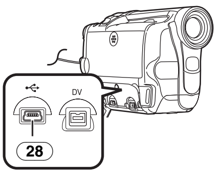
使用随附的 USB 连接工具，可以将静态图像导入个人计算机中。
- 安装 USB 驱动程序前，请勿连接 USB 电缆。

1 安装随附的 USB 驱动程序。

2 将模式旋钮 (39) 设置为个人计算机模式 .



3 将随附的 USB 电缆连接到 [ ] 插孔 (28)。
- 启动 PC 连接模式。



- 此时请使用 AC 适配器作为摄像机的电源。(如果在传输数据时电量耗尽，则会损坏卡或卡中的内容。)
- 在 PC 连接模式下，无法通过操作模式旋钮来更改模式。
- 有关操作环境、安装、连接和步骤的详细信息，请参阅 USB 连接工具的使用说明。
- 要安全断开 USB 电缆，请双击任务盘上的 [ ] 图标，并遵照屏幕说明进行操作。

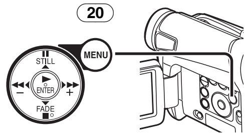
用作网络相机或与 DV STUDIO 共用的使用方法

如果将摄像机与个人计算机连接，则可通过网络将摄像机的视频和声音信号发送给其他人。
- 安装 USB 驱动程序和网络相机驱动程序前，请勿连接 USB 电缆。

1 安装随附的 USB 驱动程序和网络相机驱动程序。

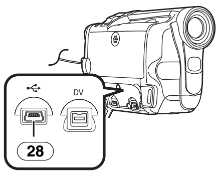
2 将模式旋钮设置为磁带录制模式或磁带回放模式。

3 作为网络相机使用：
设置 [CAMERA] 或 [PLAYBACK] >> [USB FUNCTION] >> [WEB CAMERA]。
与 DV STUDIO 共同使用时：
设置 [CAMERA] 或 [PLAYBACK] >> [USB FUNCTION] >> [DV STUDIO]。



- 进入 WEB CAMERA Mode (网络相机模式) 或 DV STUDIO Mode (数码摄像机演播室模式)。

4 将随附的 USB 电缆连接到 [ ] 插孔 (28)。



5 启动 Windows Messenger 或 DV STUDIO。
- DV STUDIO MODE 可用于 Windows98 Second Edition/Me/XP。
- 网络相机模式不能和 Windows XP 一起使用。
- 用作网络相机时，不能录制到磁带或卡上，也不能显示标题。
- 有关操作环境、安装、连接和步骤的详细信息，请参阅 USB 连接工具的使用说明。

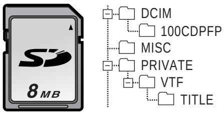
在个人计算机上使用卡 (仅 NV-GS15 型)

使用用本摄像机录制在卡上的数据时，请注意以下几点。
- 要删除使用本摄像机录制在卡上的图像，请确保在本机而不是在计算机中将其删除。
- 使用针对 Windows (VW-DTM41) 的可选 DV 编辑软件 (Motion DV STUDIO)，可添加各种视觉效果，并可创建标题。
- 在个人计算机中更改影像数据后，可能无法在本摄像机中正常回放或搜索影像。
- 利用本摄像机录制在卡中的影像数据文件遵照 JEITA (Japan Electronics and Information Technology Industries Association) 规定的 DCF (Design rule for Camera File system) 标准。

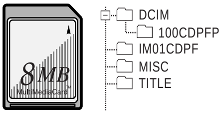
在个人计算机上使用卡时的文件夹结构

- 将录有数据的卡插入个人计算机后，将显示如图所示的各文件夹。

SD 记忆卡：



MultiMediaCard：



[100CDPFP]： 此文件夹中的影像 (IMGA0001.JPG 等) 是以 JPEG 格式录制的。

[MISC]： 其中包含为影像设置 DPOF 数据的文件。

[TITLE]： 其中包含原始标题 (USR00001.jpg、 USR00001.ttl 等) 的数据。

- [DCIM]、[IM01CDPF]、[PRIVATE]、[VTF] 等是文件夹结构中的必需项目。它们与实际操作无关。
- 在卡录制模式下，摄像机会自动将文件号 (IMGA0001.JPG 等) 随影像一起保存。文件号随每个影像一起录制时，其号码是连续的。
- 使用没有指示功能的软件时，将不显示日期等指示数据。根据所用的软件不同，可能不会正确显示日期和时间。
- SD 记忆卡标签上标出了其存储容量，该容量相当于保护和管理版权所需容量和作为摄像机、个人计算机或其它设备的一个常规内存的可用容量的总量。
  可用作常规内存的容量：
  8 MB 卡： 约 6,800,000 字节

其它内容

指示

屏幕上显示出摄像机的各种功能和状态。

: 剩余电池电量

- 电池电量降低时，指示会发生变化。电池完全耗尽时，( ) 指示即开始闪烁。

R0:45: 磁带剩余时间

- 以分钟为单位指示磁带剩余时间。(磁带剩余时间不足 3 分钟时，指示开始闪烁。)

: 磁带录制模式 *-16-*
: 磁带回放模式 *-27-*
: 卡录制模式 *-17-*
: 图像回放模式 *-30-*
PC: PC 模式 *-38-*
CINEMA: 电影模式 *-21-*
D.ZOOM: 数码变焦 *-19-*
MULTI: 多画面模式 *-25-*
P-IN-P: 画中画模式 *-25-*
WIPE: 擦去模式 *-25-*
MIX: 混合模式 *-25-*
STROBE: 频闪模式 *-25-*
TRAIL: 拖曳效果模式 *-25-*
MOSAIC: 马赛克模式 *-25-*
MIRROR: 镜像模式 *-25-*
STRETCH: 拉伸模式 *-25-*
SLIM: 狭长模式 *-25-*
NEGA: 负片模式 *-25-*
SEPIA: 褐色模式 *-25-*
B/W: 黑白模式 *-25-*
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(PB) ZOOM: 回放变焦 *-29-*
SP: 标准播放模式 (录制速度模式) *-15-*
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INDEX: 索引信号录制 *-29-*
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AUTO: 自动模式 *-16-*
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MF: 手动调焦 *-24-*
: 逆光模式 *-20-*
: 运动模式 (程序自动曝光) *-22-*
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REC: 录制 *-16-*
PAUSE: 暂停录制 *-16-*
: 自拍器拍摄 *-19-*
▷: 回放 *-27-*
❚❚: 静态回放 *-28-*
▷▷: 快进 / 快进搜索回放 *-27-*
◁◁: 倒带 / 倒带搜索回放 *-27-*
◁❚, ❚▷: 慢动作回放 *-28-*
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CHK: 拍摄检查 *-16-*
A.DUB ▷: 配音 *-35-*
A.DUB ❚❚: 暂停配音 *-35-*
BLANK: 空白搜索 *-17-*
R ▷: 重复回放 *-44-*
2×▷▷: 变速搜索 *-27-*
1/500: 手动调节快门速度时，出现此指示。*-24-*
SLIDE▷: 幻灯播放 *-31-*
SLIDE❚❚: 暂停幻灯播放 *-31-*
F2.4: 手动调节 F 值时，出现此指示。*-24-*
AWB: 自动白平衡模式 *-22-*
: 白平衡调节模式 *-22-*
: 户外模式 *-22-*
: 室内模式 (在白炽灯下拍摄) *-22-*
C.NIGHT VIEW: 彩色夜视功能 *-21-*
Z.MIC: 变焦麦克风 *-19-*
WIND CUT: 消除风干扰 *-21-*
P: 渐进拍照模式 *-17-*
SOFT SKIN: 肌肤柔和模式 *-21-*
PICTURE: 图像 *-30-*
TITLE: 标题图像 *-32-*
VOLUME: 音量调节 *-27-*
15:30:45: 日期 / 时间指示 *-41-*
N (F, E): 拍照图像质量 (在拍照录制过程中) [F] 指精细， [N] 指标准， [E] 指经济。*-17-*
000: 拍照图像的剩余数量
: 连续拍照录制 *-18-*
: 锁定设置 *-33-*
: 摄影灯亮起。*-18-*
GAINUP: 增亮模式 *-18-*
●(白色): DPOF设置已完成(对1或多画面设置) *-32-*
640: [640×480] 影像尺寸

- 对于非本机录制的影像，其显示大小由水平像素的数量确定如下。

640: 640 或以上， 800 以下 (在 640 像素以下不显示。)
SVGA: 800 或以上， 1024 以下
XGA: 1024 或以上， 1280 以下
SXGA: 1280 或以上， 1600 以下
UXGA: 1600 或以上， 2048 以下
QXGA: 2048 或以上
PICTURE (青): 拍照模式
PICTURE (红): 启动拍照录制时
PICTURE (绿): 当卡正在被读取时
PICTURE (红): 无卡 (静态图像模式)

■ 更改计数器显示模式
通过更改 [DISPLAY] 子菜单上的 [C.DISPLAY]，用户可以将计数器显示模式改为磁带计数器指示 [COUNTER] (0:00.00)、存储计数器指示 [MEMORY] (M0:00.00) 和时间码指示 [TIMECODE] (0h00m00s00f)。(*-13-*) 重复按遥控器上的 [DISPLAY] 按钮，可更改计数器显示模式。

■ 显示日期 / 时间指示
要显示日期 / 时间指示，请在 [DISPLAY] 子菜单上的 [DATE/TIME] 中设置适当的日期 / 时间。(*-13-*)
还可重复按遥控器的 [DATE/TIME] 按钮，显示或更改日期 / 时间指示。

■ 更改显示模式
通过更改 [DISPLAY] 子菜单上的 [DISPLAY]，可将显示模式更改为全部功能显示 [ALL] 和最小化显示 [OFF]。(*-13-*)

■ 渐进拍照
在以下情况下无法使用渐进拍照功能。

当使用磁带录制模式时
- 数码特效模式 [EFFECT1]
- 数码变焦 [D.ZOOM]
- 1/750 秒或更快的快门速度
- 当亮度不足时
- 当夜视功能启动时
- 当使用肖像模式时
- 当内置 LED 摄影灯点亮且增亮模式设置为打开时。

当使用卡录制模式时 (仅 NV-GS15 型)
- 当亮度不足时
- 当夜视功能启动时
- 当内置 LED 摄影灯点亮且增亮模式设置为打开时。

初始化模式
可以将菜单设置改回为发货时状态。

1 设置 [INITIAL] >> [INITIAL SET] >> [YES]。
- 初始化需要一点时间。
- 初始化完成后，出现 [COMPLETED] 指示，同时伴有嘟嘟声。

- 初始化不会删除已调整过的时钟设置 (*-15-*)。

警告 / 报警指示
如果以下指示中有任何一个亮起或闪烁，请检查摄像机的状况。

DEW (DEW DETECT/EJECT TAPE)：
发生水汽凝结。*-46-*

(CHECK REC TAB/TAPE NOT INSERTED)：
当意外删除保护滑块设置到 [SAVE] 时，试图在磁带上录制图像。
当意外删除保护滑块设置到 [SAVE] 时，试图在磁带上进行配音或数码复制。
未插入磁带。*-10-*

(LOW BATTERY)：
电池电量太低。请重新充电。*-8-*

：内置电池电量太低。*-15-*

(NEED HEAD CLEANING)：
摄像头有污垢。*-46-*

END (TAPE END)：
录制中磁带已到头。

REMOTE (CHECK REMOTE MODE)：
选择了错误的遥控器模式。*-7-*

UNPLAYABLE TAPE (OTHER FORMAT)：
试图回放采用不同电视制式录制的磁带。

UNABLE TO A. DUB (LP RECORDED)：
由于原始内容以 LP 模式录制，所以不能进行配音。

INCOMPATIBLE TAPE：
此磁带不兼容。

PUSH THE RESET SWITCH：
检测到装置中有问题。按 [RESET] 按钮 (*-5-*, *-49-*)。这样可解决问题。

CARD FULL：
卡中存储容量不足。
选择图像回放模式并删除不需要的文件。

NO CARD：
未插入卡。

NO DATA：
卡中没有已录制的文件。

UNPLAYABLE CARD：
试图回放与本机不兼容的数据。

CARD ERROR：
此卡与本机不兼容。

COPY INHIBITED:
由于媒体受复制保护，无法正常录制影像。

INCORRECT OPERATION：
在图像回放模式下，在 USB 电缆没有连接到 PC 时，按下了拍摄开始 / 停止按钮。

CAN NOT USE USB CHANGE MODE:
在卡录制模式或图像回放模式下，USB 线缆被连接到摄像机上。

CAN NOT OPERATE：
在磁带录制 / 回放模式中，试图在 USB 电缆连接到摄像机上时在卡上录制图像。

UNABLE TO WRITE (MULTI RECORDING)：
当通过设定 [EFFECT1] 的数码特效 [MULTI] 向磁带上录制图像时，按下了 [PHOTO SHOT] 按钮。

UNABLE TO WRITE：
当在卡上录制静态图像时，按下了拍摄开始 / 停止按钮。

CASSETTE DOOR OPENED：
在录制前请关闭磁带盒盖。

NO TITLE：
标题没有被录制。

UNABLE TO WRITE (WIDE MODE)：
试图通过按 [PHOTO SHOT] 按钮来录制 S1 信号的图像 (纵横尺寸比为 16:9)。

FILE LOCKED：
试图删除被保护的图像。

CARD LOCKED：
SD 记忆卡上的写保护开关被设置为 [LOCK]。
DISCONNECT USB CABLE：
试图在 USB 电缆连接到摄像机上时，转动模式旋钮或在 PC 模式中关闭摄像机。

注意事项与提示

■ 关于电源
- 长时间使用本机后，机体会发热，这并非故障。
- 在电池已与 AC 适配器连接而 [CHARGE] 灯不亮时，拆下电池，再重新装上。

■ 插入 / 取出磁带
- 在使用以前录制的磁带时，可使用空白搜索功能查找要继续录制的位置。
- 如果插入新磁带，录制前应将磁带倒至开头处。
- 插入磁带时，应首先确认方向正确，然后将其推入到位。
- 磁带盒架在运动中时，除 [PUSH] 标记外，勿碰任何位置。
- 关闭磁带盒盖时，切勿将任何物品卡在其中，如立体声麦克风的电缆。

■ 警告音
当将 [TAPE RECORDING MENU] 的 [INITIAL] 子菜单中的 [BEEP SOUND] 设置为 [ON] 时，发出的确认 / 报警音如下。

1 声嘟嘟音
- 开始录制时
- 将 [OFF/ON] 开关从 [OFF] 置为 [ON] 时

2 声嘟嘟音
- 暂停录制时

2 声嘟嘟音，重复 4 次
- 录制前或录制过程中执行了错误的操作

■ 录制检查
- 要进行录制检查，录制速度模式 (SP/LP) 必须与录制所用的模式相同。如果不同，回放的影像将会变形。

■ 在卡上录制 (仅 NV-GS15 型)
- 即使将 [SHTR EFFECT] 设置为 [ON]，也无法在图像上录制快门效果。
- 不能复制带有宽屏格式信号的图像。
- 屏幕色彩改变或模糊时，请手动调节快门速度至 1/50 或 1/100。

拍照
- 无法录制声音。
- 本机支持的文件格式为 JPEG。(并不能回放所有 JPEG 格式的文件。)
- 如果选择 [NORMAL] 或 [ECONOMY] 进行摄录，在回放某些影像内容时，影像中可能会出现马赛克干扰。

连续拍照
- 松开 [PHOTO SHOT] 按钮后，可能会再拍摄一个静态图像。
- 无法同时使用连续拍照和标题功能。
- 将 [SELF TIMER] 设置为 [ON] 时，本机将根据 [BURST MODE] 设置，摄录最大可录数量的图像。
- 当使用由其它设备格式化的卡时，录制图像的时间间隔会变大。
- 如果多次重复录制或删除图像，录制图像的时间间隔会变大。在这种情况下，请在个人计算机上备份您的重要数据，然后在本摄像机上格式化您的卡。
- 根据卡片不同，拍摄画面的间隔可能会变大。我们建议您使用 Panasonic SD 记忆卡。

■ 使用内置 LED 摄影灯拍摄
- 物体应距摄像机 1.5 米之内。
- 使用 LED 摄影灯会缩短电池时间。
- 当不使用时，请将 LED 摄影灯关闭。
- 要避免直接向摄影灯里看。
- 如果 LED 摄影灯和安装的转换镜头一起使用，在屏幕上会出现轻微的晕影效果 (在边缘周围有暗影)。
- 同时使用夜视功能可以使环境更加明亮。
- LED 摄影灯只是用来照亮在暗光区内被拍摄的影像。但我们建议在亮光区也使用它，以获得更好的影像质量。

■ 快速启动
- 在快速启动待机模式过程中，会少量耗电。
- 当摄像机保持拍摄暂停模式 6 分钟，即进入快速启动待机模式。要再次打开摄像机，请将 [OFF/ON] 开关设置到 [OFF] 后，再将其设置为 [ON]。(这将恢复快速启动模式。)
- 以下情况下不能启用此功能：
  - 虽设置为磁带 / 卡录制模式，但既没有插入卡也没有插入磁带。
- 以下情况下，在快速启动待机模式过程中将取消快速启动。
  - 操作模式旋钮。
  - 电池被更换
- 在快速启动待机模式过程中，如果按住 [QUICK START] 按钮约 2 秒钟，指示灯将熄灭，并能够彻底关闭摄像机。
- 在快速启动拍摄灯亮起时，如果未操作摄像机约 30 分钟，指示灯将熄灭，并彻底关闭摄像机。
- 在自动白平衡模式下，拍摄开始时拍摄的色彩可能会不自然。
- 在快速启动待机模式下和开始录制时的变焦放大率不同。

■ 自拍器拍摄
- 将 [INITIAL] 子菜单上的 [BEEP SOUND] 设置为 [ON] 时，在自拍器待机模式下发出嘟嘟声。
- 通过操作 [OFF/ON] 开关、拍摄开始 / 停止按钮或模式旋钮，取消自拍器待机模式。

■ 放大 / 缩小功能
- 对远处目标进行变焦时，如果拍摄目标距摄像机 1.2 米或更远，就能实现更精确的对焦。
- 当您用 10 倍或更大的放大倍数拍摄画面时，摄像机很容易受机身晃动的影响。建议您使用三脚架。

■ 变焦麦克风功能
- 如果环境噪声太大，可能难以有效使用变焦麦克风功能。
- 它不能与外部麦克风一起使用。

■ 数码变焦功能
- 影像质量随数码变焦放大率的增加而下降。
- 无法在数码变焦范围中设置白平衡。

■ 影像稳定器功能
- 在阴暗处，不能使用影像稳定器功能。在此情况下，[ ] 指示会闪烁。
- 在荧光灯下，影像亮度会发生变化，或色彩看起来不自然。
- 可能会出现修正后的影像。
- 使用三脚架时，建议关闭影像稳定器。
- 在数码变焦范围内或使用配备的转换镜头进行摄录时，可能难以有效使用影像稳定器功能。
- 当您在暗淡的场地，用10倍或更大的放大倍数设定值拍摄画面，并将图像稳定器功能设定在 [ON] 时，残留图像可能会太突出。在此情况下，我们建议您使用三脚架，并将图像稳定器设定在 [OFF]。

■ 逆光补偿功能
- 手动设置光圈时，不能使用逆光补偿功能。
- 通过操作 [OFF/ON] 开关，取消逆光补偿功能。

■ 夜视功能
- 在亮处 (如户外)，摄录的图像可能会发白。
- 在暗处，摄录的图像会以类似于延时的方式显现。
- 手动调节焦距。
- 自动关闭渐进拍照功能。
- 不能使用连续拍照功能。
- 无法设置白平衡。
- 无法调节快门速度。
- 不能设定图像稳定器、程序 AE、多标题屏幕、或 [EFFECT1] 中的数字效果方式。
- 使用夜视功能摄录时，建议使用三脚架。
- 夜视功能最多可将 CCD 的信号充入时间延长为通常情况下的 25 倍，所以，肉眼看不见的暗景可以明亮地录制下来。由于这一原因，可能会出现一些亮点，但这并非故障。
- 影像稳定器功能不可用。在此情况下，[ ] 指示会闪烁。
- 不能改变肌肤柔和功能和逆光补偿功能。

■ 消除风干扰功能
- 它不能与在外置麦克风上的麦克风一起使用。
- 将其设置为 [ON] 时，将根据风的强度来调整麦克风的方向，以减少风的干扰。

■ 电影功能
- 使用电影模式并不会加宽摄录角度。
- 如果在宽屏 (16:9) 格式的电视机上回放用电影模式录制的磁带，会自动调整回放影像的大小，以适应电视机的屏幕格式。有关详细信息，请参考电视机的使用说明书。
- 在电视机屏幕中显示这些影像时，某些情况下将不显示日期 / 时间指示。
- 根据电视机的不同，图像质量可能会有所下降。
- 显示标题时，将取消电影模式。
- 无法同时使用电影模式和标题创建。
- 使用电影模式时不能使用 [EFFECT1] 的 [MULTI] 和 [P-IN-P]。
- 根据所用的软件，导入的电影图像可能不会正确显示。

■ 程序自动曝光
- 如果选择了任何一种程序自动曝光模式，则无法调节快门速度 (*-23-*) 或光圈 (*-24-*)。
- 使用夜视功能取消任何一种程序自动曝光模式。
- 使用闪光功能，将会取消任何程序 AE 方式。

运动模式
- 在常规回放过程中，影像的运动看上去可能不是很流畅。
- 因为回放影像的色彩和亮度会变化，所以请避免在荧光灯、汞灯或钠灯下进行拍摄。
- 如果拍摄强光照射或高度反光目标，可能会出现竖向亮线。
- 如果光照不足，则 [ ] 指示将闪烁。

运动模式 / 肖像模式
- 如果用渐进拍照模式摄录静态图像，所摄录的静态图像的亮度和色调可能会变得不稳定。
- 如果在室内使用此模式，回放的影像可能会产生颤动。

低照度模式
- 过暗场景可能难以处理得足够亮。

聚光灯模式
- 使用此模式摄录的影像可能会过暗。
- 如果摄录目标过亮，则摄录的影像可能会发白。

海滩及雪地模式
- 如果摄录目标过亮，则摄录的影像可能会发白。

■ 白平衡
以下情况下，不能改变白平衡：
- 当将 [EFFECT2] 设置为 [SEPIA] 或 [B/W] 时。
- 将变焦放大率设置为 24× 或更高时
- 在数码静态图像模式下
- 显示某个菜单时
- 使用夜视模式时

在以下情况下，[ ] 指示将闪烁：
- 闪烁说明仍保留着以前调整的白平衡设置。此设置会一直保留，直到再次调整白平衡。
- 弱光下可能难以手动实现正确的白平衡调节。

■ 手动快门速度调节
- 回放强光照射或高度反光目标的影像时，会看到一些竖向亮线。
- 常规回放过程中，影像的运动看上去可能不是很流畅。
- 因为回放时影像的色彩和亮度会不稳定，所以请避免在荧光灯、汞灯或钠灯下进行拍摄。
- 如果正在使用夜视模式(*-21-*)或程序自动曝光模式(*-22-*)，则不能调节快门速度。

■ 手动光圈调节
- 根据变焦放大率的不同，可能不会显示某些光圈值。
- 如果正在使用夜视模式(-21-)或程序自动曝光模式(-22-)，则不能调节光圈。
- 如果在设置光圈后调节快门速度，则会取消为光圈所设置的值。

■ 数码特效功能
- 如果将[EFFECT2]设置为[B/W]或[SEPIA]，就不能更改所选的白平衡模式。(-22-)
- 如果设置了电影模式，就不能使用画中画模式和多画面模式。
- 在数码静态图像模式中，不能设置数码特效功能。

在以下情况下，无法使用 [DIGITAL] 子菜单上的 [EFFECT1]。
- 将夜视模式设置为 (-21-)
- 当内置 LED 摄影灯点亮且增亮模式设置为打开时。

在以下情况下，无法使用数码特效功能。
- 标题输入

擦去模式和混合模式

如果执行以下操作，将删除所存储影像，而且不能使用擦去和混合功能。
- 设置数码特效的其它项目。
- 操作 [OFF/ON] 开关或模式旋钮
- 插入或退出磁带。

画中画模式
- 如果操作了模式旋钮，较小的画面将会消失。
- 无法为较小的画面插入标题。

多画面模式
- 如果在使用自拍镜像模式 (-16-) 时按 [MULTI] 按钮，静态图像将从屏幕的右上角显示出来，但图像实际上是从左上角正常拍摄的。
- 多幅影像的质量会稍微下降。
- 多画面的上方和下方会被稍微切除。

■ 回放

重复回放

如果持续按 [▶] 按钮 5 秒钟或更长时间，摄像机将切换到重复回放模式，并且出现 [R ▷] 指示。(要取消重复回放模式，请将 [OFF/ON] 开关设置为 [OFF]。)

通过耳机听回放声音

如果您想用头戴耳机来欣赏播放的声音，请将 [AV IN/OUT] 或 [INITIAL] 子菜单的 [AV JACK] 设定为 [OUT/PHONES]，并将头戴耳机连接至摄像机上的 [PHONES] 插孔 (-5-)。

在此情况下，摄像机的内置扬声器不会产生任何声音 (包括警告音和快门声音)。

回放中选择声音

使用 [PLAYBACK] 子菜单上的 [AUDIO OUT] 设置，可以选择声音。

STEREO：	立体声 (主声和次声)
L：	左声道声音 (主声)
R：	右声道声音 (次声)

- 在为以 [12bit] (在 [RECORDING] 子菜单上的 [AUDIO REC] 选择) 录制的磁带配音时，如果将 [12bit AUDIO] 设置为 [MIX]，其回放声音则变成立体声，无论 [AUDIO OUT] 设置是什么。

■ 索引搜索功能
- 在磁带开头可能无法进行索引搜索。
- 如果 2 个场景索引信号之间的时间间隔短于 1 分钟，场景索引搜索可能不会正常进行。

■ 回放变焦功能
- 在回放变焦模式下不能用遥控器调节音量。
- 如果关闭摄像机电源，或者操作模式旋钮，则自动取消回放变焦模式。
- 即使使用了回放变焦功能，从 DV 端子 (-5-) 输出的影像也不会被放大。
- 放大影像时，影像质量会下降。
- 在回放变焦过程中，不能用遥控器更改变速搜索功能。

■ 回放数码特效功能
- 回放过程中添加了数码特效的影像信号无法从 DV 端子 (-5-) 输出。
- 回放磁带的未录制部分时，不能使用擦去或混合功能。

■ 回放卡 (仅 NV-GS15 型)
- 如果回放空白 (什么也没录制) 卡，屏幕将变白。
- 如果试图回放以其它格式录制的文件或有缺陷的文件，整个显示将变蓝，并将出现 [UNPLAYABLE CARD] 指示作为警告。
- 回放其它设备录制的图像时，其大小和本机录制的图像的大小可能会不同。
- 回放其它设备录制的图像时，图像可能不能回放或图像的质量可能会变坏。
- 回放非标准文件时，可能不会显示文件夹文件号。
- 在以下情况下，使用某些回放设备可能会出现黑条。
  - 使用本机回放兆像素级的静态图像并将其录制到磁带时
  - 使用 DV STUDIO 将图像大小更改为 640×480 像素时

■ 幻灯放映 (仅 NV-GS15 型)
- 根据图像的不同，回放时间可能会较长。

■ 创建标题 (仅 NV-GS15 型)
- 即使调节了标题的对比度，也可能难以显示出明暗之间存在细微差别的部分和明暗之间的分界不清晰的部分。
- 如果对标题使用了较小的对象，则标题的显示效果可能不会很好。
- 如果创建了标题，在卡中可录制的影像数量就会减少。
- 如果在卡中可录制的影像数量太少，就不能创建标题。

■ 添加标题 (仅 NV-GS15 型)
- 添加标题功能和数码特效不能同时使用。
- 添加标题功能和连续拍照不能同时使用。

- 在磁带回放模式下显示标题时，标题不是从 DV 端子输出的。
- 插入标题后，则不能使用多画面模式。
- 使用其它设备制作的全色标题不能用本机回放或添加到图像中。
- 不能显示非 640×480 像素尺寸的标题。
- 当在多屏幕上显示出标题时，录制和回放不能执行。
- 在外部输入和 DV 输入过程中，不能使用添加标题功能或者在多屏幕上显示标题。在将电缆和摄像机连接之前，选择想在屏幕上显示的标题。

■ DPOF (仅 NV-GS15 型)
- 在摄像机使用中进行 DPOF 设置。
- 确认 DPOF 设置会需要一些时间。请稍候，直到卡存取指示灯熄灭。

■ 锁定设置 (仅 NV-GS15 型)
- 本机所作的锁定设置只对本机有效。
- SD 记忆卡上有一个写保护开关。将开关置于 [LOCK] 侧时，就不能写入或格式化卡。如果将开关拨回，就可写入或格式化。

■ 在电视上回放
- 根据您的电视机类型，即使您已将摄像机直接连接至电视机，也可能不会显示任何图像。在此种情况下，请将 [AV IN/OUT] 或 [INITIAL] 子菜单的 [AV JACK] 设定为 [OUT]。
- 如果将 [AV IN/OUT] 子菜单上的 [AV JACK] 设置为 [IN/OUT]，则仅在回放过程中电视屏幕上才会显示内容。
- 在带回放数码特效的宽屏幕电视机上回放电影图像时，所显示图像的大小可能会有所不同。

■ 从卡上将图像录制到磁带中 (仅 NV-GS15 型)
- 将卡中的影像录制到磁带时，其大小将根据 DV 格式转换成 720×576。
- 如要在磁带上录制较大影像尺寸的静态图像，则影像质量可能会下降。

■ 配音
- 不能对磁带的空白部分配音。
- 不能用通过 DV 端子发送的声音来配音。
- 如果在配音时磁带上存在未录制的部分，那么在回放这一部分的磁带时，影像和声音可能会受到干扰。
- 如果在要停止配音的位置将磁带计数器设置为 0，以使用记忆停止功能 (*-50-*)，那么，磁带到达此位置时将自动终止配音。
- 使用某些 PC 软件将录有配音的数据导入 PC 时，根据软件可能只能导入原始声音 (ST1)。

■ 录制其它设备的内容
录制到卡上 (仅 NV-GS15 型)

如果将模式旋钮设置为卡录制模式，就可以对外部输入信号使用拍照功能。
- 影像的 4 个边缘可能会出现黑色条纹。

模数转换
- 摄像机与其它数码影像设备通过DV端子连接时，可通过 DV 端子将其它外部设备以模拟形式录制的影像输出到数码影像设备。
- 要从DV端子输出其它设备发送的模拟视频信号，请将 [AV IN/OUT] 子菜单上的 [DV OUT] 设置为 [ON]。(通常情况下请将 [DV OUT] 设置为 [OFF]。如果将其设置为 [ON]，可能会影响影像的质量。)

■ 使用 DV 电缆进行录制 (数码复制)
- 无论设置如何，数码复制将自动进行，方式与回放磁带的音频录制模式相同。
- 录制监视器上的图像可能会受到干扰，但不影响所录制的影像。
- 即使已经使用了回放数码特效、回放变焦或回放添加标题，这些效果也不会从 DV 端子输出。
- 即使使用了配有 DV 端子 (如 IEEE1394) 的设备，某些情况下可能仍无法执行数码复制。
- 如果所连接设备的软件不支持相应显示功能，则不能显示应显示的日期或其它信息。

使用注意事项

■ 使用后
1 取出磁带。(*-10-*)
2 将 [OFF/ON] 开关设置为 [OFF]。
3 取出卡 (仅 NV-GS15 型)。(*-10-*)
4 断开电源，收回取景器或 LCD 监视器。(*-8-*, *-11-*)
5 盖上随机配备的镜头盖以保护镜头。

■ 使用注意事项
在雨雪天或海滩使用摄像机时，切勿使水进入本机。
- 水会造成摄像机或磁带发生故障。(可能会出现无法修复的故障。)
- 如果海水溅到摄像机上，请用自来水浸湿一块软布，拧干，并用它小心擦拭机体。然后再用一块干软布彻底擦拭一遍。

摄像机需远离磁场设备 (例如微波炉、电视机、视频游戏设备等)。
- 如果在电视机上或电视机附近使用摄像机，影像和声音可能会由于电磁波的辐射而受到干扰。
- 请勿在手机附近使用本机，否则会影响影像和声音质量。
- 由扬声器或大的电机产生的强磁场环境，会使录制在磁带上的数据损坏，或影像失真。
- 由微处理器产生的电磁波辐射，会影响摄像机，导致影像和声音受到干扰。
- 如果摄像机受有磁设备影响而不能正常工作时，请关闭摄像机的电源，拆下电池或 AC 适配器，然后再装上电池或 AC 适配器。最后，打开摄像机电源。

切勿在无线电发射机或高压电缆附近使用摄像机。
- 如果在无线电发射机或高压电缆旁进行摄录，摄录的影像或声音会受到不良影响。

请勿将本机用于监视或其它商业用途。

- 如果长时间使用本机，机体内的温度会升高，并会因此而导致故障。
- 本摄像机不是为商业用途设计的。

在沙滩或类似的地方使用摄像机时，请勿让沙粒或细小的灰尘进入机体。

- 沙粒或灰尘可能会损坏摄像机或磁带。(插入或取出磁带时要特别小心。)

请勿向摄像机喷洒杀虫剂或挥发性化学物质。

- 如果摄像机上喷洒了此类化学物质，机体可能会变形，表面漆层可能会剥落。
- 请勿将橡胶或塑料制品与摄像机长时间接触。

请勿使用汽油、稀释剂或酒精清洁摄像机。

- 否则机体可能会受到损坏，表面漆层会剥落。
- 清洁前，请拆下电池或将 AC 电源线从 AC 电源插座中拔出。
- 用干软布擦拭摄像机。要祛除顽固的污渍，可以用软布蘸少许稀释后的清洁剂进行擦拭，最后再用干布擦拭一遍。
- 存放或携带摄像机时，请将它放在带软衬垫的包或箱子里，以防止机体的镀层受到磨损。

使用后，请确保取出磁带，拆除电池，或将 AC 电源线从 AC 电源插座中拔出。

- 如果将磁带留在摄像机中，磁带会松弛并老化。
- 如果将电池长时间留在摄像机中，其电压会大幅下降，即使重新充电也不能正常使用。

■ 关于 AC 适配器

- 如果电池温度过高或过低，[CHARGE] 灯会持续闪烁，但不会充电。电池温度降低或升高到一定程度后，充电会自动开始。如果电池温度降至或升至正常范围，但 [CHARGE] 灯仍然闪烁，则表明电池或 AC 适配器可能有问题。在这种情况下，请与经销商联系。
- 如果电池发热，充电时间会较长。
- 如果在无线电设备附近使用 AC 适配器，则会干扰无线电接收。请将 AC 适配器放在离无线电设备至少 1 米远的地方。
- 当使用 AC 适配器时，会发出嗡嗡声。这是正常现象。
- 使用后，确保将 AC 电源线从 AC 电源插座中拔出。(如果保持连接，则会少量耗电。)
- 请保持 AC 适配器和电池电极的清洁。

■ 水汽凝结

如果在磁头和磁带上产生水汽凝结时打开摄像机，在取景器和 LCD 监视器上将闪烁着水汽凝结指示 [💧DEW] (黄色或红色)，并且出现 [DEW DETECT] 或 [EJECT TAPE] 信息 (仅在插入了磁带时)。在此情况下，请按以下步骤执行。

以黄色闪亮：

有一点露水附着在磁头或磁带上。

以红色闪亮：

有露水附着在磁头或磁带上。

1. **如果插入了磁带，请取出。**
    - 打开磁带盒架需要 20 秒钟。这并不是故障。
2. **在磁带盒盖关闭的情况下放置摄像机，使其冷却或升温，直至达到环境温度。**

当 [💧DEW] 以黄色闪亮时

- 不能使用磁带录制 / 回放模式。将摄像机放置大约 30 分钟。
- 但当磁带未插入时，可以使用卡录制模式或图像回放模式。

当 [💧DEW] 以红色闪亮时

- 电源灯闪亮约1分钟，然后摄像机自动关闭。将其放置大约 2 到 3 小时。

3. **再次打开摄像机，将它设置到磁带录制 / 回放模式，然后检查水汽凝结指示是否消失。**

特别是在冷的地方，露水可能会冻结。在这种情况下，水汽凝结指示消失前可能需要更多的时间。

即使在显示水汽凝结指示之前也要注意观察水汽凝结情况。

- 根据情况，水汽凝结指示可能不会出现。当水汽凝结发生在镜头和摄像机上时，它也可能会发生在磁头和磁带上。请不要打开磁带盒盖。

镜头被雾化时：

请将 [OFF/ON] 开关设置为 [OFF]，并在此状态下保持约 1 小时。镜头温度接近环境温度时，雾气会自然消失。

■ 摄像头污染和维护

如果磁头 (与磁带接触的部分) 不干净，回放影像中会出现马赛克杂斑，或整个屏幕变黑。如果磁头过脏，摄录性能也会下降，甚至根本无法摄录。

磁头污染的原因

- 空气中的大量灰尘
- 高温度和高湿度环境
- 已损坏的磁带
- 长时间使用

使用 Mini-DV 格式数码摄像头清洁器

1. **像插入磁带一样将磁头清洁器插入摄像机。**
2. **按[▶]按钮，约20秒钟后，再按[■]按钮。(请勿倒带。)**
3. **取出磁头清洁器。插入磁带，开始录制。然后回放磁带，检查录制的影像。**
4. **如果影像仍不清晰，请重复步骤 1 到 3。(请勿连续使用磁头清洁器 3 次以上。)**

注意：

- 使用磁头清洁器时，切勿倒带。只能在清洁带到头时才能倒带，然后按照前面的方式从开始处再次使用。
- 如果磁头清洁后又很快变脏，则可能是磁带已损坏。在这种情况下，请立即停止使用此磁带。
- 请勿过频清洁磁头。(过频清洁会造成磁头过度磨损。如果磁头磨损，即使在清洁磁头后，也将无法回放影像。)
- 如果不能用磁头清洁器清洁污损磁头，则需送维修中心进行清洁。请与经销商联系。
- 摄像头清洁器可从维修中心购买。
- 因磁头变脏而进行的磁头清洁不是本产品的故障。它不在保修范围之内。

定期检查

为了保持最佳的影像质量，建议在使用约 1,000 小时后更换磁头等磨损部件。(这取决于温度、湿度、灰尘等操作环境。)

■ 电池的最佳使用方式

电池性能

本电池是可充电的锂离子电池。它基于内部化学反应产生能量。这种反应易受环境温度和湿度的影响。如果温度太高或太低，则电池的工作时间都会缩短。如果在过冷环境中使用本电池，则可能只能使用约 5 分钟。如果电池变得过热，则启用保护功能，此时电池将暂时不可用。

确保使用后取出电池

确保使用后从摄像机中取出电池。(如果将电池留在摄像机中，即使关闭了摄像机的电源，仍会少量耗电。) 如果将电池长时间留在摄像机中，则会发生过放电。重新充电后，电池可能无法使用。

不可用电池的处置

- 电池的寿命是有限的。
- 请勿将电池扔进火中，因为这样可能导致爆炸。

请保持电池端子清洁

防止电池端子被脏物、灰尘或其它物质阻塞。

如果不小心将电池掉在地上，请检查电池及其端子是否变形。

如果将变形的电池装入摄像机或 AC 适配器，则可能会损坏摄像机或 AC 适配器。

■ 存放时的注意事项

存放摄像机前，请取出磁带和电池。

所有部件均应放在干燥且温度相对稳定的地方。

(建议温度：15 到 25°C，建议湿度：40 到 60%)

摄像机

- 用软布包裹摄像机以防灰尘落入机内。
- 请勿将摄像机存放在温度过高的地方。

电池

- 温度过高或过低都会缩短电池的寿命。
- 如果将电池存放在有烟雾或灰尘的地方，电池端子可能会生锈，因而导致无法正常工作。
- **请勿将电池端子与金属物体 (例如项链、发夹等) 接触。这样可能导致短路或产生热量，如果在这种情况下触摸电池，可能会被严重烧伤。**
- 电池应在完全放电的状态下保存。长时间存放电池时，建议每年充一次电，并且每次都把电耗尽后再存放起来。

磁带

- 存放磁带前，请将磁带倒回开始处。如果将中途停止的磁带存放 6 个多月，磁带就会松弛 (取决于存放条件)。请务必倒回开始处。
- 请在磁带盒中存放磁带。灰尘、直射阳光 (紫外线) 或潮气都会损坏磁带。含有硬性矿物微粒的灰尘和被污染的磁带会损坏摄像机的摄像头和其它部件。要养成将磁带放回磁带盒的习惯。
- 最好每半年就将磁带快进到末尾，再倒至开头一次。如果磁带 1 年或更长时间没有快进或倒带，则由于膨胀、收缩等原因，温度和湿度的变化可能会造成磁带变形。损坏的磁带会自己粘在一起。
- 请勿将磁带放在高磁性物质或设备附近。
- 磁带表面覆盖着一层极微细的磁性粒子，信号即录制在这些粒子上。带磁性的项链、玩具等具有超乎想象的磁力，它们可能会删除录制的内容，或对影像和声音造成干扰。

卡 (仅 NV-GS15 型)

- 正在读取卡时，请勿取出卡、关闭电源、或让它受到震动或挤压。
- 请勿将卡放在高温、阳光直射或容易产生电磁波或静电的地方。
- 切勿弯曲或掉落卡。否则会损坏卡或卡中录制的内容。
- 使用后，请确保将卡从摄像机中取出。
- 使用后，请将随附的 SD 记忆卡存放在密封袋中。
- 请勿用手指触摸卡背面的端子。请勿让脏物、灰尘或水进入卡。

■ LCD 监视器 / 取景器 / 镜头遮光罩

LCD 监视器

- 在温度变化很大的地方，LCD 监视器上可能会形成水汽凝结。可以用干软布将它擦掉。
- 打开电源时，如摄像机过凉，LCD 监视器上的影像开始时会比通常稍暗。但是，随着内部温度的升高，会恢复正常的亮度。

> 制造 LCD 监视器屏幕时采用了尖端精密技术，其总的像素大约为 105,000。99.99% 的像素有效，仅有 0.01% 的像素不可用或总是亮的。但这并非故障，不会影响录制的图像。

取景器

- 请勿将取景器或镜头直接对着太阳。否则会严重损坏内部部件。
- 在安装大容量电池 (CGR-D16S、 CGP-D28S ；可选件) 的情况下使用摄像机时，将无法从电池后看取景器。

> 制造取景器屏幕时采用了尖端精密技术，其总的像素大约为 67,000。99.99% 的像素有效，仅有 0.01% 的像素不可用或总是亮的。但这并非故障，不会影响录制的图像。

镜头遮光罩

- 不要在镜头遮光罩前安装其它的转换镜头，它上面没有用于安装的结构。
- 安装长焦转换镜头 (VW-LT2714N2E ；可选件)、广角转换镜头 (VW-LW2707N2E ；可选件)、MC 保护器 (VW-LMC27E ；可选件)、或 ND 滤镜 (VW-LND27E ；可选件)，首先要逆时针旋转镜头遮光罩。如果使用 MC 保护器或 ND 滤镜，可以将镜头遮光罩安装在滤光器上。
- 如果将滤镜和转换镜头一起安装到摄像机上，则在拍摄过程中，如果将 [W/T] 杆推向 [W] 方向，则影像的 4 个角将会变暗 (渐晕)。详细信息，请参考附件的使用说明书。
- 确保镜头遮光罩安装在摄像机上，以遮挡不需要的光线。

要求修理前 (问题和解决方法)

电源

1: 不能接通摄像机电源。
- 电源连接正确吗？ (*-8-*)

2: 摄像机自动关闭电源。
- 当拍摄暂停模式持续时间超过 6 分钟，电源会自动关闭，以保护磁带并节省电量。(如果使用 AC 适配器，电源仅在磁带录制模式下插入磁带时关闭。) 在磁带录制模式下，当磁带已插入时，如果拍摄暂停模式持续时间超过 6 分钟，电源会自动关闭。
  要从此状态下恢复录制，需先关闭电源，然后再打开电源。(*-16-*)

3: 摄像机的电源不能持续足够长的时间。
- 电池电量低吗？ 对电池充电或装入已完全充电的电池。(*-8-*)
- 出现了水汽凝结吗？ 等待，直至水汽凝结指示消失。(*-46-*)

电池

1: 电池耗用太快。
- 电池是否已完全充电？ 用 AC 适配器充电。(*-8-*)
- 是在过冷环境中使用电池吗？ 在冷环境中，电池的使用时间将缩短。(*-47-*)
- 电池已报废了吗？ 电池完全充电后，如果使用时间仍然太短，则表明电池已报废。

2: 电池不能充电。
- 如果将 DC 输入导线接到 AC 适配器，则将不能进行充电。请断开 DC 输入导线。

常规拍摄

1: 虽然摄像机已通电并正确插入了磁带，但仍不能开始录制。
- 磁带上的意外删除保护滑块是否被打开？ 如果被打开 (设置为 [SAVE])，则不能录制。(*-10-*)
- 磁带是否到达末尾？ 插入新磁带。(*-10-*)
- 摄像机的电源是否打开？ (*-16-*)
- 出现了水汽凝结吗？ 等待，直至水汽凝结指示消失。(*-46-*)

其它录制

1: 自动调焦功能不可用。
- 选择了手动调焦模式吗？ 如果选定自动调焦模式，将自动调节焦距。(*-24-*)
- 存在着一些摄录目标和摄录环境，使自动调焦功能不能正常使用。在这种情况下，请使用手动调焦模式来调节焦距。(*-49-*)

编辑

1: 不能进行配音。
- 磁带上的意外删除保护滑块是否被打开？ 如果被打开 (设置为 [SAVE])，则不能录制。(*-10-*)
- 是否是对以 LP 模式录制的磁带部分进行编辑？ LP 模式下不允许配音操作。(*-15-*)

指示

1: 时间码变得不准确。
- 在慢动作回放模式下，时间码指示计数器可能反向不是常数，但这并不是故障。

2: 磁带剩余时间指示与实际磁带剩余时间不一致。
- 如果连续录制了不足 15 秒钟的场景，则不能正确显示磁带剩余时间。
- 在有些情况下，磁带剩余时间指示所显示的时间比实际要短 2 至 3 分钟。

回放 (图像)

1: 即使按了 [▶] 按钮也不能回放图像。
- 模式旋钮是否设置到回放模式？ 如果没有，就不能使用回放功能。(*-27-*)

2: 在快进搜索、倒带搜索或慢动作回放过程中，影像上出现马赛克杂斑。
- 这种现象是数码视频系统的固有特征。这并不是故障。

3: 虽然摄像机已与电视机正确连接，但仍看不到回放影像。
- 在电视机上选择了 “视频输入”吗？ 请阅读电视机的使用说明书，然后选择与连接所用的输入插孔相对应的频道。
- 根据您的电视机类型，即使您已将摄像机直接连接至电视机，也可能不会显示任何图像。在此种情况下，请将 [AV IN/OUT] 或 [INITIAL] 子菜单的 [AV JACK] 设定为 [OUT]。

4: 回放图像不清晰。
- 摄像机的磁头是否变脏？ 如果磁头变脏，回放影像则无法清晰。(*-46-*)

5: 回放或录制不能运行，屏幕已冻结或指示已消失。
- 关闭摄像机。如果在操作 [OFF/ON] 开关后摄像机没有被关闭，请先按 [RESET] 按钮 (*-5-*, *-49-*)。拆下电池或 AC 适配器，然后再重新将其装入。

回放 (声音)

1: 摄像机的内置扬声器或耳机中没有回放出声音。
- 音量太低吗？ 在回放过程中，推动 [W/T] 杆可显示 [VOLUME] 指示，请调节音量。(*-27-*)

2: 同时再生了不同的声音。
- 已经将 [TAPE PLAYBACK MENU] 的 [PLAYBACK] 子菜单上的 [12bit AUDIO] 设置为 [MIX]。结果，原始声音和通过配音录制的声音被一起回放出来。各声音可以分别再生。(*-35-*)

3: 进行配音时删除了原始声音。
- 如果对 [16bit] 模式下录制的内容配音，将删除原始声音。如果要保留原始声音，请确保在录制时选择了 [12bit] 模式。

4: 声音不能回放。
- 虽然所播放的磁带没有配音，是否将 [TAPE PLAYBACK MENU] 的 [PLAYBACK] 子菜单上的 [12bit AUDIO] 设置为 [ST2]？ 要回放没有配音的磁带，必须将 [12bit AUDIO] 设置为 [ST1]。(*-35-*)
- 正在执行变速搜索功能吗？ 按 [▶] 按钮取消变速搜索功能。(*-27-*)

卡 (仅 NV-GS15 型)

1: 录制的图像不清晰。

- 是否将[CARD]子菜单上的[PICT QUALITY]设置为 [NORMAL] 或 [ECONOMY]？ 如果在设置为[NORMAL] 或 [ECONOMY] 时录制，具有精细清晰度的影像可能会包含马赛克杂斑。将[PICT QUALITY] 设置为 [FINE]。(*-17-*)

2: 拍照回放影像看上去不正常。

- 图像可能已损坏。为防止影像数据丢失，建议在磁带或个人计算机中将其备份。(*-35-*, *-38-*)

3: 回放过程中，显示 [UNPLAYABLE CARD] 指示。

- 影像以其它格式录制，或数据已损坏。

4: 卡经过格式化后仍无法使用。

- 摄像机或卡可能已损坏。请与经销商联系。

其它内容

1: 自由式遥控器不能正常使用。

- 如果未插牢，就不能正常使用。

2: 晃动摄像机时会发出咔嗒声。

- 这是镜头移动的声音，并不是故障。

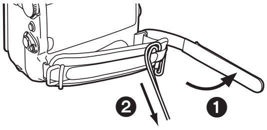
3: 断开 USB 电缆时，在 PC 上出现错误信息。

- 要安全地断开 USB 电缆，请在任务盘中双击 [ ] 图标，然后遵照屏幕说明进行操作。(*-38-*)

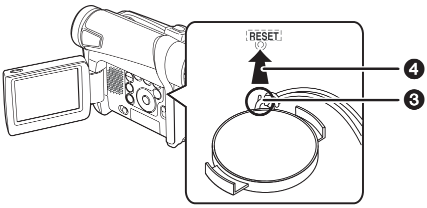
使用 RESET （复位）钮时

1 打开 LCD 监视器。(*-11-*)

2 松开手执带末端 ❶，向下拉镜头盖线 ❷，使手执带松脱。



3 用镜头盖上的突出部分 ❸，按 [RESET] 钮 ❹。



术语解释

■ 数码视频系统

数码视频系统中，影像和声音被转换成数码信号，然后录制在磁带中。这一完全数码录制过程能够以最小的失真来录制和回放影像和声音。

此外，它能够自动将时间码和日期 / 时间等数据录制为数码信号。

与 S-VHS 或 VHS 磁带的兼容性

由于本机采用了数码系统来录制影像或声音数据，所以它不兼容使用模拟录制系统的常规 S-VHS 或 VHS 设备。

磁带的尺寸和形状也不同。

与输出信号的兼容性

由于从 AV 信号输出插孔输出的 AV 信号是模拟信号 (与常规视频系统相同)，所以，本机可与 S-VHS、 VHS 视频或电视机连接来进行回放。

■ 焦距

自动焦距调节

自动调焦系统通过前后移动摄像机中的调焦镜头，可将目标拉进焦距范围内，从而看到清晰的目标。但是，自动调焦系统不能正常用于以下拍摄目标或摄录环境。

此时请使用手动调焦模式来代替。

1) 拍摄一端距摄像机近而另一端距摄像机远的目标时

- 由于自动调焦在影像的中心调整焦距，因而无法对既有前景又有后景的目标准确对焦。

2) 摄录不干净或有灰尘的玻璃后的目标时

- 由于焦点在不干净的玻璃上，因而不能对玻璃后的目标对焦。

3) 拍摄黑暗环境中的目标

- 由于透过镜头的光信号减少很多，因而摄像机不能正确对焦。

4) 拍摄四周有光滑表面或高度反光物体的目标时

- 由于摄像机将焦点定在光滑表面或高度反光物体上，所以拍摄目标就会变得相对模糊。

5) 拍摄快速移动的目标

- 由于内部对焦镜头的移动为机械运动，所以不能跟上快速移动的目标。

6) 拍摄反差较小的目标

- 由于摄像机是根据目标的垂直线确定焦距的，因此，对于白色的墙体这样反差较小的目标，拍摄效果可能会比较模糊。

■ 时间码

时间码信号是以小时、分钟、秒和帧 (每秒 25 帧) 为单位指示时间的数据。如果录制内容中含有这种数据，就会为磁带上的每个影像分配一个地址。

- 每次录制时，时间码自动作为子代码的一部分而被录制。
- 插入新 (以前未录制过的) 磁带后，时间码自动从零开始。如果插入了已录制的磁带，时间码将从上次所录制的场景处开始。(在这种情况下，插入磁带后会出现零显示 [0h00m00s00f]，但时间码却从上一个值开始。)
- 不能将时间码重置为零。
- 除非从磁带的开头连续录制时间码，否则将不能进行准确的编辑。要确保录制的时间码没有中断，建议在录制新场景前，使用空白搜索功能 (*-17-*)。

■ 记忆停止功能

记忆停止功能对以下操作非常有用。

将磁带倒带或快进至一个所需位置时

1 设置 **[DISPLAY] >> [C.DISPLAY] >> [MEMORY]**。

2 在稍后开始回放时的磁带位置，将磁带计数器重新设置为零。(*-6-*, *-13-*)

3 开始回放或录制。

4 回放或录制完成后：
将摄像机设置为磁带回放模式。

5 倒转磁带。

- 磁带自动停在计数器设置为零的位置附近。

配音过程中自动停止编辑

1 设置 **[DISPLAY] >> [C.DISPLAY] >> [MEMORY]**。

2 在要停止编辑的位置将磁带计数器重置为零。

3 在要开始配音的位置回放静态图像。

4 开始配音。(*-35-*)

- 配音会在计数器设置为零的位置自动停止。

规格

规格

数码摄像机
安全注意事项

电源：
DC 7.9 / 7.2 V
功耗：
拍摄
2.6 W (使用取景器时)
3.3 W (使用 LCD 监视器时)

拍摄格式：
Mini DV(用户使用数码视频 SD 格式)
所用磁带：
6.35 mm 数码视频磁带
拍摄 / 回放时间：
SP：80 分钟； LP：120 分钟 (使用 DVM80 时)
视频
录制系统：
数码部件
电视系统：
CCIR：625 行， 50 帧 PAL 彩色信号
音频
录制系统：
PCM 数码录制
16 位 (48 kHz / 2ch)， 12 位 (32 kHz / 4ch)
影像传感器：
1/6 英寸 CCD 影像传感器
镜头：
自动光圈， F1.8，焦距； 2.1 - 50.4 mm，微距 (全范围 AF)
滤镜直径：
27 mm
变焦：
24：1 电动变焦
监视器：
2.5 英寸 LCD
取景器：
电子取景器
麦克风：
立体声 (带变焦功能)
扬声器：
1 个环绕扬声器 ∅ 20 mm
标准照明度：
1,400 lx
最低照明度：
2 lx(彩色夜视模式)
视频输出电平：
1.0 Vp-p， 75 ohm
S-Video 输出电平：
Y 输出：1.0 Vp-p， 75 ohm
C 输出：0.3 Vp-p， 75 ohm
音频输出电平 (线路)：
316 mV， 600 ohm
视频输入电平：
1.0 Vp-p， 75 ohm
S-Video 输入电平：
Y 输入：1.0 Vp-p， 75 ohm
C 输入：0.3 Vp-p， 75 ohm
音频输入电平 (线路)：
316 mV， 10 kohm 或更高
麦克风输入：
麦克风灵敏度 -50 dB (0 dB=1 V/Pa, 1 kHz) (立体声微型插孔)
USB：
卡读 / 写器功能 (仅 NV-GS15 型)，
USB 2.0 兼容 (最大 12 Mbps)
不支持版权保护
数码接口：
DV 输入 / 输出端子 (IEEE1394， 4 针)
尺寸：
约 69 (宽)×87 (高)×112 (长) mm
重量：
约 410 g(不包括电池和 DV 磁带)
约 490 g(包括 CGR-D08R 和 DVM60)
工作温度：
0°C - 40°C
工作湿度：
10% - 80%
卡记忆功能
录制介质：(仅 NV-GS15 型)
MultiMediaCard (4 MB / 8 MB / 16 MB)，
SD 记忆卡 (8 MB / 16 MB / 32 MB / 64 MB / 128 MB / 256 MB / 512 MB)
静态图像录制文件格式：(仅 NV-GS15 型)
JPEG (Design rule for Camera File system (相机文件系统设计规则)，基于 Exif 2.2 标准)，相应的 DPOF
静态影像尺寸：(仅 NV-GS15 型)
640×480 像素 (VGA)
网络相机
压缩：
运动 JPEG
影像尺寸：
320 ×240 像素 (QVGA)

AC 适配器 (VSK0581)
安全注意事项

电源：
AC 100 - 240 V, 50 / 60 Hz
功耗：
20 W
DC 输出：
DC 7.9 V, 9 W (摄像机工作时)
DC 8.4 V, 1.2 A (电池充电时)

尺寸：
70 (宽)×45 (高)×116 (长) mm
重量：
约 165 g

重量和尺寸为近似值。
规格变更，恕不另行通知。

SD 记忆卡 (可选件) 可录制静态图像的最大数量

PICTURE QUALITY	FINE	NORMAL	ECONOMY
8 MB	45	95	190
16 MB	100	200	400
32 MB	220	440	880
64 MB	440	880	1760
128 MB	880	1760	3520
256 MB	1760	3520	7040
512 MB	3520	7040	14080

- 以上数字取决于拍摄目标。
- 表中所示数字为近似值。

Information for Your Safety

As this equipment gets hot during use, operate it in a well-ventilated place; do not install this equipment in a confined space such as a bookcase or similar unit.

To reduce the risk of fire, electric shock or product damage, do not expose this equipment to rain, moisture, dripping or splashing and ensure that no objects filled with liquids, such as vases, shall be placed on the equipment.

Movie Camera
- **The rating plate is on the underside of the Movie Camera.**

AC Adaptor
- **The rating plate is on the underside of the AC Adaptor.**

Carefully read the Operating Instructions and use the Movie Camera correctly.
- **Injury or material damage resulting from any kind of use that is not in accordance with the operating procedures explained in these Operating Instructions are the sole responsibility of the user.**

Operating Instructions
- These Operating Instructions apply to models NV-GS11 and NV-GS15.
- The illustrations used in these Operating Instructions show model NV-GS15, however, parts of the explanation refer to different models.
- Depending on the model, some functions are not available.

Try out the Movie Camera.
Be sure to try out the Movie Camera before recording your first important event and check that it records properly and functions correctly.

The manufacturer is not liable for loss of recorded contents.
The manufacturer shall in no event be liable for the loss of recordings due to malfunction or defect of this Movie Camera, its accessories or cassettes.

Carefully observe copyright laws.
Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.
- The Movie Camera uses copyright-protected technologies and is protected by the patented technologies and intellectual properties of Japan and the U.S. To use these copyright-protected technologies, authorization of the Macrovision Company is required. It is prohibited to disassemble or modify the Movie Camera.

- Windows is a trademark or registered trademark of Microsoft Corporation U.S.A.
- SD Logo is a trademark.
- All other company and product names in the operating instructions are trademarks or registered trademarks of their respective corporations.

Files recorded on a MultiMediaCard or SD Memory Card
It may not be possible to play back the files on this Movie Camera recorded on and created by other equipment or vice versa. For this reason, check the compatibility of the equipment in advance.
- Keep the Memory Card out of reach of children to prevent swallowing.

Pages for reference
Pages for reference are indicated by dashes either side of a number, for example: *-00-*

WARNING
Do not remove the cover (or back); there are no user serviceable parts inside.
Refer servicing to qualified service personnel.

Use only the recommended accessories.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

Contents

Playback Mode

Editing Mode

With a PC

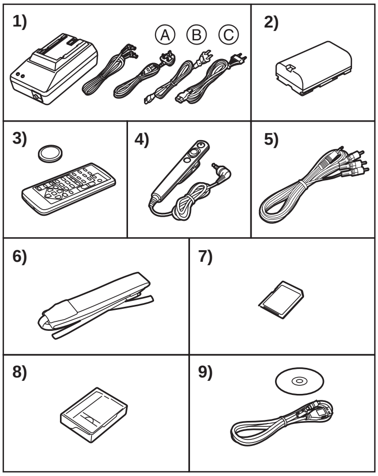
Others

Specifications

Before Use

Standard Accessories

Illustrated are accessories supplied with the Movie Camera.



1) **AC Adaptor, DC Input Lead and AC Mains Lead** *-60-*
   - Ⓐ Hong Kong Special Administrative Region of China and Saudi Arabia
   - Ⓑ The People’s Republic of China
   - Ⓒ Areas Other than Hong Kong Special Administrative Rigion of China, the People’s Republic of China and Saudi Arabia
2) **Battery Pack** *-60-*
3) **Remote Controller and Button-Type Battery** *-58-*
4) **Free Style Remote Controller** *-59-*
5) **AV Cable** *-108-*
6) **Shoulder Strap** *-62-*
7) **SD Memory Card (supplied with NV-GS15)** *-63-*
8) **Digital Video Head Cleaner** *-105-*
9) **USB Connection Kit (USB Cable and CD-ROM)** *-94-*

Optional Accessories

1) AC Adaptor (VW-AD9E/B)
2) Battery Pack (Lithium/CGR-D08S/800mAh)
3) Battery Pack (Lithium/CGR-D16S/1600mAh)
4) Battery Pack (Lithium/CGP-D28S/2800mAh)
5) Car Battery Charger (VW-KBD2E)
6) Wide Conversion Lens (VW-LW2707N2E)
7) Tele Conversion Lens (VW-LT2714N2E)
8) ND Filter (VW-LND27E)
9) MC Protector (VW-LMC27E)
10) Stereo Microphone (VW-VMS2E)
11) Video DC Light (VW-LDC10E)
12) Light Bulb for Video DC Light (VZ-LL10E)
13) Shoe Adaptor (VW-SK11E)
14) Tripod (VW-CT45E)
15) DV Cable (VW-CD1E)
16) DV Editing Software with DV Interface Board (VW-DTM41E)

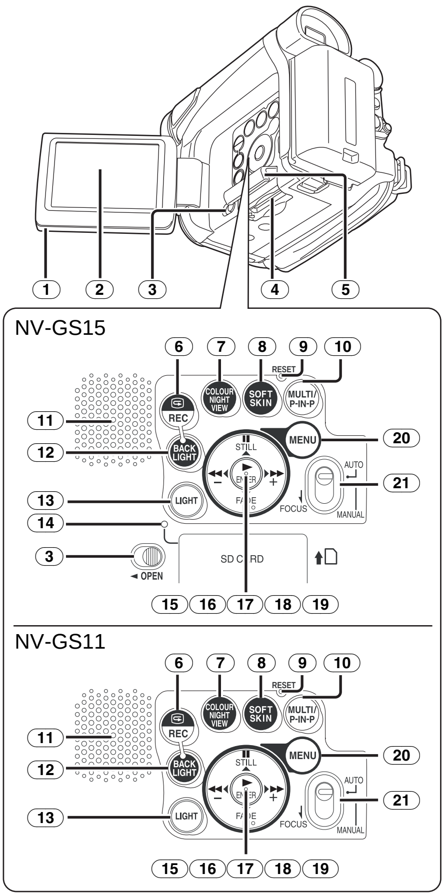
The following is for the NV-GS15 model only.

17) SD Memory Card (RP-SD008/RP-SD016/RP-SD032/ RP-SD064/RP-SD128/RP-SDH256/ RP-SDH512)
18) MultiMediaCard (VW-MMC8E/VW-MMC16E)
19) PC Card Adaptor for SD Memory Card (BN-SDABPE)
20) USB Reader Writer for SD Memory Card (BN-SDCAPE)

- Some optional accessories may not be available in some countries.

Controls and Components

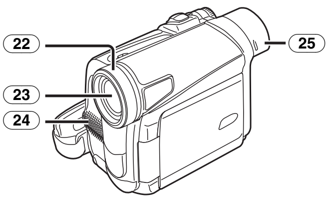
Movie Camera



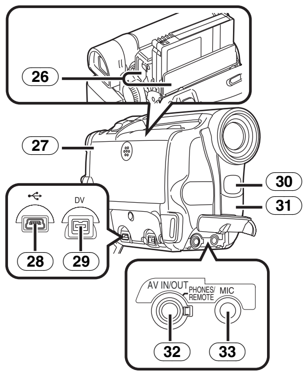
1. **LCD Monitor Open Knob [OPEN▼]** *-64-*
2. **LCD Monitor** *-64-*, *-106-*

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

3. **Card Slot Cover Open Lever [OPEN] (NV-GS15 only)** *-63-*
4. **Card Slot (NV-GS15 only)** *-63-*
5. **Card Slot Cover (NV-GS15 only)** *-63-*
6. **Recording Check Button [⊖]** *-71-*
   Recording Button [REC] *-93-*
7. **Colour Night View Button [COLOUR NIGHT VIEW]** *-75-*
8. **Soft Skin Button [SOFT SKIN]** *-76-*
9. **Reset Button [RESET]** *-98-*, *-109-*
10. **Multi Button [MULTI]** *-80-*, *-86-*
    Picture-in-Picture Button [P-IN-P] *-81-*
11. **Speaker** *-82-*
12. **Backlight Button [BACK LIGHT]** *-75-*
13. **Light Button [LIGHT]** *-72-*
14. **Card Access Lamp (NV-GS15 only)** *-63-*
15. **Pause Button [❚❚]** *-83-*,
    Still Button [STILL] *-71-*
16. **Fast Forward/Cue Button [▶▶]** *-82-*, *-86-*
17. **Play Button [▶]** *-82-*, *-86-*
    Enter Button [ENTER] *-65-*
18. **Stop Button [■]** *-82-*, *-86-*
    Fade Button [FADE] *-75-*
19. **Rewind/Review Button [◀◀]** *-82-*, *-86-*
20. **Menu Button [MENU]** *-65-*
21. **Mode Selector Switch [AUTO/MANUAL/FOCUS]** *-70-*, *-76-*



22. **Lens Hood** *-107-*
23. **Lens**
24. **Microphone (built-in, stereo)** *-74-*, *-76-*
25. **Eyecup**

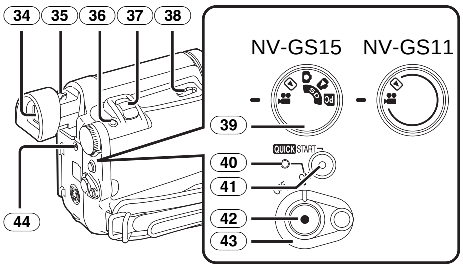


26. **Cassette Holder**
27. **Cassette Compartment Cover** *-63-*
28. **USB Socket [⭠]** *-94-*
29. **DV Terminal [DV]** *-93-*
    - Connect this to the digital video equipment
30. **Built-in LED Video Light** *-72-*

(31) **White Balance Sensor** *-77-*
Remote Control Sensor *-60-*

(32) **Audio-Video Input/Output Socket [AV IN/OUT]** *-90-*
Socket for Free Style Remote Controller [REMOTE]
Headphone Socket [PHONES]
- Connecting an AV Cable to this socket activates the Movie Camera’s built-in speaker, but connecting a headphone, etc. deactivates it.
- When connecting the pin plug of the AV Cable to this socket, plug it in as far as it goes.
- When connecting the pin plug of the Free style Remote Controller to this socket, plug it in as far as it goes.
- When using headphones, set [AV JACK] of the [AV IN/OUT] or [INITIAL] sub-menu to [OUT/PHONES]. If you set [AV JACK] to [OUT], you may hear noises on the right.

(33) **Microphone Socket [MIC]**
- When connecting an external microphone or audio equipment to this socket, the built-in microphone does not operate.

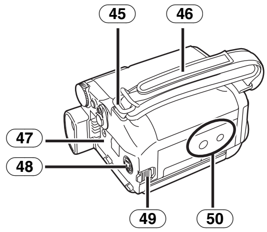


(34) **Viewfinder** *-64-*, *-107-*

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Viewfinder screen. However, this is not a malfunction and does not affect the recorded picture.

(35) **Eyepiece Corrector Knob** *-64-*
(36) **Photoshot Button [PHOTO SHOT]** *-71-*, *-72-*, *-91-*
(37) **Zoom Lever [W/T] [−VOL/JOG+]** *-73-*
(38) **Cassette Eject Lever [OPEN/EJECT]** *-63-*
(39) **Mode Dial** *-64-*
(40) **Power Lamp** *-64-*, *-70-*, *-82-*
(41) **Quick Start Recording Button [QUICK START]** *-73-*
Quick Start Recording Lamp *-73-*
(42) **Recording Start/Stop Button** *-70-*
(43) **Power Switch [OFF/ON]** *-64-*, *-70-*, *-103-*

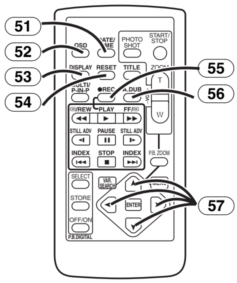
(44) **DC Input Socket [DC/C.C.IN]** *-60-*



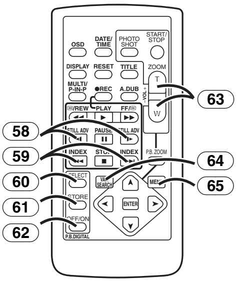
(45) **Shoulder Strap Holders** *-62-*
(46) **Grip Belt** *-62-*
(47) **Battery Holder**
(48) **S-Video Input/Output Socket [S-VIDEO IN/OUT]** *-90-*
(49) **Battery Release Lever [BATTERY RELEASE]** *-61-*
(50) **Tripod Receptacle**
- Used for mounting the Movie Camera on an optional tripod.

Remote Controller

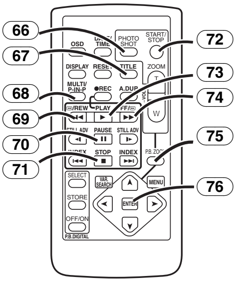
Using the wireless Remote Controller that is supplied with the Movie Camera, most of the Movie Camera functions can be operated from a distance.



(51) **Date/Time Button [DATE/TIME]** *-97-*
(52) **Indication Output Button [OSD]** *-90-*
(53) **Display Button [DISPLAY]** *-97-*
(54) **Reset Button [RESET]** *-110-*
(55) **Recording Button [●REC]** *-93-*
(56) **Audio Dubbing Button [A.DUB]** *-91-*
(57) **Cursor Buttons for Variable Speed Search Function [▲, ▼]** *-83-*
Direction Buttons for Playback Zoom Function [▲, ▼, ◄, ►] *-85-*



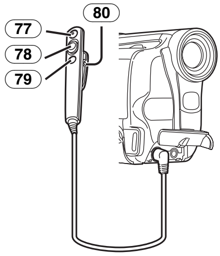
58 **Slow Motion/Still Advance Buttons [◂I, I▸] (◂I: reverse, I▸: forward)** *-83-*
59 **Index Search Buttons [|◀◀, ▶▶|] (|◀◀: reverse, ▶▶|: forward)** *-84-*
60 **Selection Button [SELECT]** *-85-*
61 **Store Button [STORE]** *-85-*
62 **Off/On Button [OFF/ON]** *-85-*
63 **Zoom/Volume Button [ZOOM/VOL]** *-73-*, *-82-*, *-85-*
64 **Variable Speed Search Button [VAR. SEARCH]** *-83-*
65 **Menu Button [MENU]** *-65-*



66 **Photoshot Button [PHOTO SHOT]** *-72-*, *-91-*
67 **Title Button [TITLE]** *-87-*
68 **Multi-Picture/Picture-in-Picture Button [MULTI/P-IN-P]** *-80-*, *-86-*
69 **Rewind/Review Button [◀◀]** *-82-*, *-86-*
70 **Pause Button [❚❚]** *-83-*
71 **Stop Button [■]** *-82-*, *-86-*
72 **Recording Start/Stop Button [START/STOP]** *-70-*
73 **Play Button [▶]** *-82-*, *-86-*
74 **Fast-forward/Cue Button [▶▶]** *-82-*, *-86-*
75 **Playback Zoom Button [P.B. ZOOM]** *-84-*
76 **Enter Button [ENTER]** *-65-*

■ Free Style Remote Controller

This controller allows the scene to be shot from various angles, high to low, and is also convenient when the Tripod is used. When the controller is not in use, attach the clip to the Grip Belt for convenience.
This controller allows the Movie Camera to be for left-handed users.



77 **Recording Start/Stop Button [REC]**
78 **Zoom Lever [W/T]**
79 **Photoshot Button [PHOTO SHOT]**
80 **Clip**

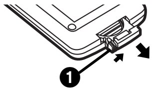
- **Insert the plug securely into the [REMOTE] Socket as far as it will goes. A loose connection will spoil normal operation.**

The Remote Controller

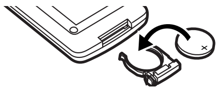
■ Inserting a Button-type Battery

Before using the Remote Controller, insert the supplied button-type battery.

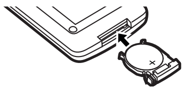
1 **While pressing the Stopper ❶, pull out the Battery Holder.**



2 **Insert the button-type battery with the (+) marking facing upward.**



3 **Insert the Battery Holder into the Remote Controller.**



- When the button-type battery is exhausted, replace it with a new CR2025 battery. (A battery is normally expected to last about 1 year. However, it depends on operation frequency.)

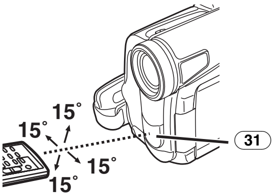
- Make sure to match the poles correctly when inserting the battery.

> ***CAUTION***
> Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

> ***WARNING***
> Risk of fire, explosion and burns. Do not recharge, disassemble, heat above 100°C or incinerate. Keep the Button-Type battery out of the reach of children. Never put Button-Type battery in mouth. If swallowed call your doctor.

■ Using the Remote Controller

1 Direct the Remote Controller at the Remote Control Sensor (31) of the Movie Camera and press an appropriate button.



- Distance from the Movie Camera: Within approximately 5 metres
- Angle: Within approximately 15° in the vertical and horizontal directions from the central axis
- The above operating ranges are for indoor use. Outdoors or under strong light, the Movie Camera may not operate properly even within the above ranges.

Selecting Remote Controller Modes

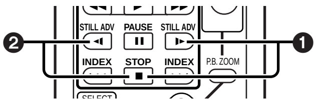
When 2 Movie Cameras are used simultaneously, they can be operated individually by selecting different Remote Controller Modes.

- If the Remote Controller Mode of the Movie Camera and that of the Remote Controller do not match, [REMOTE] Indication is displayed.

Setup on the Movie Camera:

Set [REMOTE] on the [INITIAL] Sub-Menu to the desired Remote Controller Mode. (-67-)

Setup on the Remote Controller:



[VCR1]:

Press the [❚▶] Button and [■] Button simultaneously. ❶

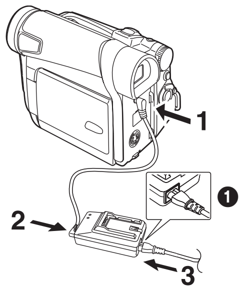
[VCR2]:

Press the [◀❚] Button and [■] Button simultaneously. ❷

- When the battery in the Remote Controller is replaced, the mode is automatically reset to [VCR1] Mode.

Power Supply

■ Using the AC Adaptor



1 Connect the DC Input Lead to the [DC/C.C.IN] Socket on the Movie Camera.

2 Connect the DC Input Lead to the AC Adaptor.

3 Connect the AC Mains Lead to the AC Adaptor and the AC mains socket.

- The AC Mains Lead's outlet plug does not fit entirely into the AC Adaptor socket. A gap will remain as shown ❶.

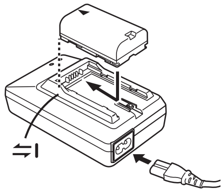
- **Before connecting or disconnecting the power supply, set the [OFF/ON] Switch on the Movie Camera to [OFF] and make sure that Power Lamp is not lit.**

■ Using the Battery

Before use, fully charge the Battery.

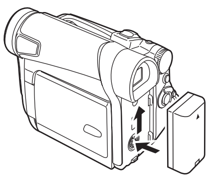
- We recommend using Panasonic's Battery.
- We cannot guarantee the quality of this Movie Camera when batteries of other companies are used.

1 **Attach the Battery to the AC Adaptor and charge it.**



- Since the Battery will not be charged when the DC Input Lead is connected to the AC Adaptor, disconnect it from the AC Adaptor.
- The [POWER] Lamp and [CHARGE] Lamp lights up, and charging starts.
- When the [CHARGE] Lamp goes off, charging is completed.
- When charging the overdischarged battery, the [CHARGE] lamp blinks at first, but the battery is charged normally. When the temperature of the battery is too high or low, the [CHARGE] lamp blinks and the charging time becomes longer than usual.

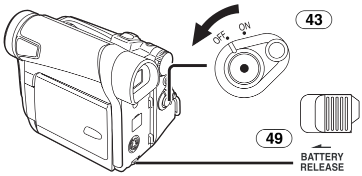
2 **Attach the charged Battery to the Movie Camera.**



To Remove the Battery

Set the [OFF/ON] Switch (43) to [OFF], and while sliding the [BATTERY RELEASE] Lever (49), slide the Battery to remove it.

- When attaching or removing Battery, set the [OFF/ON] Switch to [OFF] and make sure the [POWER] Lamp is not lit.



Using the Car Battery Charger (optional)

If you use the Car Battery Charger (VW-KBD2E; optional), you can supply power to the Movie Camera and charge the battery inside your car. For further information, refer to the instruction manual of the Car Battery Charger.

- Be sure to start the car engine before you connect the Car Adaptor Cord, otherwise the fuse may blow.
- For other notes concerning this item, see -98-.

Charging Time and Available Recording Time

NV-GS11/NV-GS15		
CGR-D08R CGR-D08S	Ⓐ	1h
	Ⓑ	2h10min. (1h45min.)
	Ⓒ	1h5min. (55min.)
CGR-D16S	Ⓐ	2h
	Ⓑ	4h20min. (3h30min.)
	Ⓒ	2h10min. (1h45min.)
CGP-D28S	Ⓐ	3h15min.
	Ⓑ	7h40min. (6h)
	Ⓒ	3h50min. (3h)

Ⓐ Charging Time
Ⓑ Maximum Continuous Recording Time
Ⓒ Intermittent Recording Time
(Intermittent Recording Time is the available recording time with repeated recording and stopping actions.)
"1h10min." indicates 1 hour and 10 minutes.

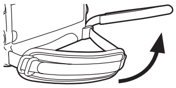
- Battery CGR-D08R is supplied.
- The times shown in the table are approximate times. The numbers indicate the recording time when the Viewfinder is used. The numbers in parentheses indicate the recording time when the LCD Monitor is used. In actual use, the available recording time may be shorter.
- The times shown in the table are for continuous recording at a temperature of 25°C and humidity of 60%. If the Battery is charged at a higher or lower temperature, the charging time may be longer.
- The available recording time becomes shorter if you use both of Viewfinder and LCD Monitor simultaneously when using the Colour Night View function, rotating the LCD Monitor frontward to record yourself or setting [EVF ON/AUTO] to [ON].

The Grip Belt

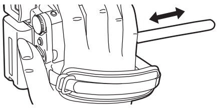
■ To Use as a Grip Belt

Adjust the length of the Grip Belt to the size of your hand.

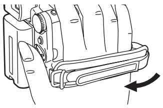
1 Detach the end of the Grip Belt.



2 Adjust the length of the Grip Belt to the size of your hand.



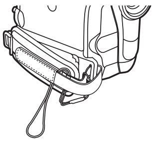
3 Reattach the Grip Belt.



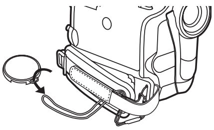
Re-attaching the Lens Cap

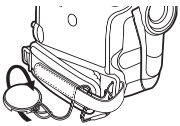
To protect the Lens surface, attach the Lens Cap.

1 The Lens Cap and Lens Cap Cord comes preattached to the Grip Belt.

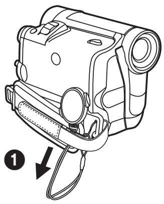


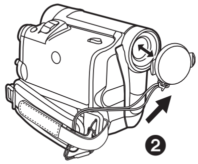
2 Pass the end of the Lens Cap Cord through the attached eye on the Lens Cap. Then pass the Lens Cap through the loop made by itself and pull tight.





- When not using the Lens Cap, pull the Lens Cap Cord in the direction of the arrow. ❶
- When you are not recording, be sure to cover the Lens with the Lens Cap for protection. ❷





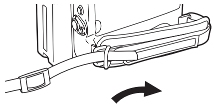
- When you remove the Lens Cap, press the knobs firmly.



Attaching the Shoulder Strap

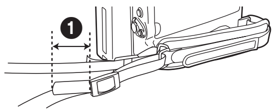
We recommend that you attach the Shoulder Strap before going out of doors to record so as to avoid dropping the Movie Camera.

1 Pull the end of the Shoulder Strap through the Shoulder Strap Holder on the Movie Camera.



2 Fold the end of the Shoulder Strap, run it through the Shoulder Strap Length Adjuster, and pull it.

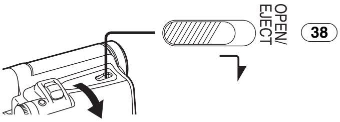
- Pull it out more than 2 cm ❶ from the Shoulder Strap Length Adjuster so that it cannot slip off.



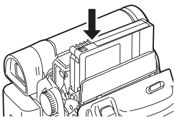
- Attach the other end of the Shoulder Strap to the other Shoulder Strap Holder in the same way.

Inserting a Cassette

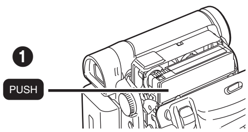
1 Slide the [OPEN/EJECT] Lever (38) toward the front and pull down to fully open the Cassette Compartment Cover.
- To protect the tape, if the cover is not fully opened, the cassette cannot be ejected.



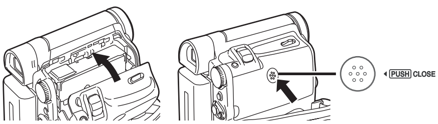
2 Insert a Cassette.



3 Close the Cassette Holder by pressing the [PUSH] mark ❶.

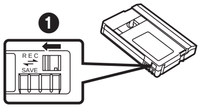


4 Close the Cassette Compartment Cover.



Accidental Erasure Prevention

Opening the accidental erasure prevention slider ❶ on the cassette (by sliding it to the [SAVE] arrow direction) prevents recording. To enable recording, close the accidental erasure prevention slider (by sliding it to the [REC] arrow direction).



- For other notes concerning this item, see -98-.

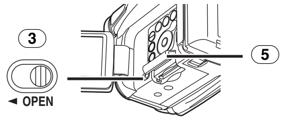
Using a Card (NV-GS15 only)

A Card can be used to record pictures.

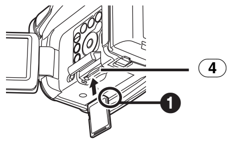
Before inserting or removing a Card, be sure to turn off the Movie Camera.
- Otherwise, the Movie Camera may not function properly or it may cause the loss of recorded data in a Card.

Inserting a Card

1 Slide the [OPEN] Lever (3) to open the Card Slot Cover (5).



2 While holding the Memory Card with its cut corner facing right ❶, insert it into the Card Slot (4).

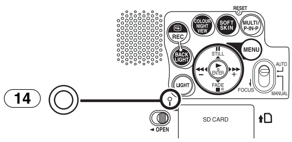


3 Close the Card Slot Cover (5) securely.

Removing the Card

Open the Card Slot Cover and press the centre of the Card and then pull it straight out.
- After removing the Card, close the Card Slot Cover.
- The Movie Camera may be damaged if the Card is forced out when the Card is fully inserted.

Card Access Lamp (14)



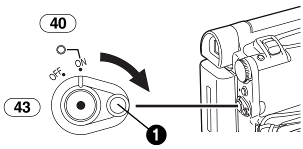
While the Movie Camera is accessing the Card (reading, recording, playback or erasing), Card Access Lamp lights up.
- While Card Access Lamp is on, never attempt to open the Card Slot Cover, to pull out the Card, to turn off the Movie Camera, or to turn the Mode Dial. Such actions will damage the Card, and recorded data, and cause the Movie Camera to malfunction.

Turning on the Movie Camera

How to Turn on the Power

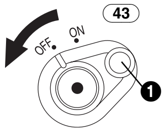
1 Set the [OFF/ON] Switch (43) to [ON] while pressing the button ❶.

- The [POWER] Lamp (40) lights up.



How to Turn off the Power

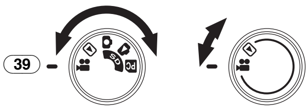
1 Set the [OFF/ON] Switch (43) to [OFF] while pressing the button ❶.



Selecting Modes

You can choose a desired mode by rotating the Mode Dial.

1 Rotate the Mode Dial (39).



NV-GS15 NV-GS11

:Tape Recording Mode
Use this mode when recording pictures on a tape. NV-GS15 only: Also, you can record still pictures on the card simultaneously during recording on a tape.

:Tape Playback Mode
Use this mode when playing back the recorded scene on a tape.

:Card Recording Mode (NV-GS15 only)
Use this mode when recording still pictures on a card.

:Picture Playback Mode (NV-GS15 only)
Use this mode when playing back the recorded still picture on a card.

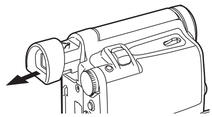
PC :PC Mode (NV-GS15 only)
Use this mode when you want to connect the Movie Camera to your Personal Computer.

Using the Viewfinder/LCD Monitor

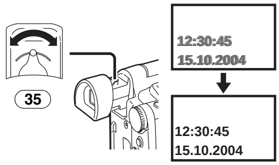
Using the Viewfinder

Before using the Viewfinder, adjust the field of view so that the displays inside the Viewfinder become clear and easy to read.

1 Pull the Viewfinder.



2 Adjust by turning the Eyepiece Corrector Knob (35).



To Use the Viewfinder at the Same Time as the LCD Monitor

Set [LCD/EVF] >> [EVF ON/AUTO] >> [ON].

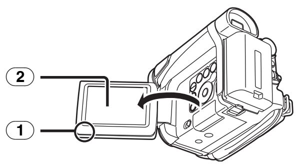
- The Viewfinder does not turn off even if the LCD Monitor is opened.
- When you turn the Movie Camera off, this setting is cancelled.

Using the LCD Monitor

With the LCD Monitor open, you can also record the picture while watching it.

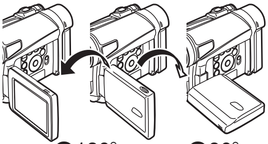
1 Put a finger on the [OPEN▼] Knob (1) and pull the LCD Monitor (2) out in the direction of the arrow.

- The Viewfinder is deactivated.
- The LCD Monitor can be opened a maximum of 120°. If you open the LCD monitor by 120°, it becomes convenient to operate menus or to play back pictures.



2 Adjust the LCD Monitor angle according to the desired recording angle.

- The LCD Monitor can rotate a maximum of 180° ❶ from the vertical position upwards and a maximum of 90° ❷ to the downward direction. Forcefully rotating the LCD Monitor beyond these ranges will damage the Movie Camera.



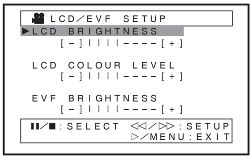
Closing the LCD Monitor

Push the LCD Monitor until it is securely locked.

- Make sure the Card Slot Cover is closed (NV-GS15 only).

■ Adjusting Brightness and Colour Level

When [LCD/EVF SET] on the [LCD/EVF] Sub-Menu is set to [YES], the following items are displayed.



LCD Brightness [LCD BRIGHTNESS]

Adjusts the brightness of the image on the LCD screen.

LCD Colour Level [LCD COLOUR LEVEL]

Adjusts the colour saturation of the image on the LCD screen.

Brightness of the Viewfinder [EVF BRIGHTNESS]

Adjusts the brightness of the image in the Viewfinder.

To Adjust

Press the **[❚❚/■]** Button and select the item to be adjusted, and then press the **[◀◀/▶▶]** Button to raise or lower the number of vertical bars in the Bar Indication.

- A larger number of vertical bars indicates stronger brightness or colour saturation.

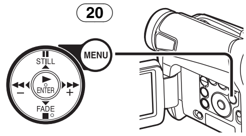
- For other notes concerning this item, see -106-.

Using the Menu Screen

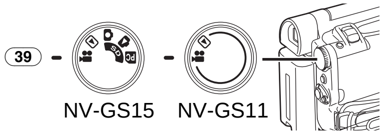
To facilitate the selection of a desired function or setup, this Movie Camera displays various function setups on Menus.

- When operating the menu with the Viewfinder, set [LCD/EVF] >> [EVF ON/AUTO] >> [ON] or rotate the LCD monitor by 180°.

1 Press the [MENU] Button (20).



- The Menu corresponding to the Mode selected by using the Mode Dial (39) is displayed.



2 Press the [❚❚/■] Button to select a desired Sub-Menu.

- Press the [❚❚/■] Button to display the highlighted item.

3 Press the [▶▶] Button to display the selected Sub-Menu.

4 Press the [❚❚/■] Button to select the item.

5 Press the [▶▶] Button to display the selected item.

6 Press the [❚❚/■] Button to select the desired mode and press [ENTER] Button to determine the setting.

- While a Menu is displayed, you cannot record or play back. Menus can be displayed during playback but not during recording. The above operations can be done using the [MENU] Button, [▲, ▼, ◀, ▶] Buttons and [ENTER] Button on the Remote Controller. (-58-)

To Return the Previous Screen

Press the [◀◀] Button.

To Exit the Menu Screen

Press the [MENU] Button again.

About the Menu Mode Setting

The setting selected on the Menu will be retained even when the Movie Camera is turned off. However, if the Battery or AC Adaptor is disconnected before turning off the Movie Camera, the selected setup may not be retained. (The setups of [EFFECT2] (-80-) are not retained.)

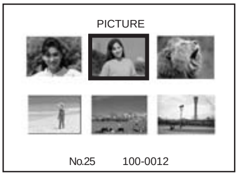
- Menu operation flow is shown in this text by >>.

File Selection in the Picture Playback Mode (NV-GS15 only)

A File Selection Operation may be necessary during Menu Operations. In this case, carry out the following procedure.

1 Press the [❚❚/■/◀◀/▶▶] Button and select a file.

- The selected file is marked by a frame.



2 Press the [ENTER] Button (17) to confirm the selection of the file.

- After the above File Selection Procedure, carry out the various Menu Operations. (The above procedure will not be repeated in the following instructions.)

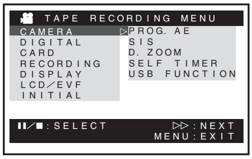
List of Menus

The figures of the Menus are for explanation purposes only, and they are different from the actual Menus.

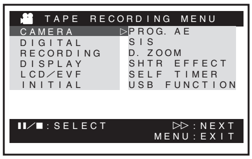
[TAPE RECORDING MENU]

Tape Recording Mode

NV-GS15



NV-GS11



1) [CAMERA]

Camera Setup Sub-Menu

[PROG.AE]

Auto Exposure Mode *-76-*

[SIS]

Image Stabilizer *-74-*

[D.ZOOM]

Digital Zoom *-74-*

[SHTR EFFECT] (NV-GS11 only)

Shutter Effect *-71-*

- You can add a sound like releasing the shutter.

[SELF TIMER]

Self-timer Recording *-73-*

[USB FUNCTION]

USB Functions Mode *-94-*

- If you press [◀◀] Button, the menu changes back to the previous screen.

2) [DIGITAL]

Digital Setup Sub-Menu

[EFFECT1]

Digital Effects 1 *-79-*

[EFFECT2]

Digital Effects 2 *-80-*

[MULTI MODE]

Multi-Picture Mode *-80-*

[TITLE IN] (NV-GS15 only)

Adding a Title *-87-*

3) [CARD] (NV-GS15 only)

Card Setup Sub-Menu

[PICT QUALITY]

Picture Quality *-72-*

[CREATE TITLE]

Title Creation *-87-*

4) [RECORDING]

Recording Setup Sub-Menu

[REC SPEED]

Recording Speed Mode *-69-*

[AUDIO REC]

Audio Recording Mode *-69-*

[SCENE INDEX]

Scene Index Mode *-84-*

[WIND CUT]

Wind Noise Reduction *-76-*

[ZOOM MIC]

Zoom Microphone *-74-*

[CINEMA]

Cinema-like Format Recording *-76-*

5) [DISPLAY]

Display Setup Sub-Menu

[DISPLAY]

Display Mode *-97-*

[DATE/TIME]

Date and Time Indication *-97-*

[C.DISPLAY]

Counter Display Mode *-97-*

[C.RESET]

Counter Reset *-110-*

- It resets the counter to zero. However, it cannot reset the Time Code.

6) [LCD/EVF]

LCD/EVF Setup Sub-Menu

[LCD/EVF SET]

LCD and Viewfinder Adjustment *-65-*

[SELF REC]

Recording Yourself *-70-*

[EVF ON/AUTO]

Using the Viewfinder *-64-*

7) [INITIAL]

Initial Setup Sub-Menu

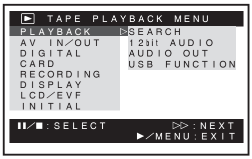
[BLANK SEARCH]
Blank Search *-71-*
[DEMO MODE]
Demonstration Mode
- If no operation takes place for approximately 10 minutes after the AC Adaptor is connected to the Movie Camera and the [OFF/ON] Switch is turned to [ON] without inserting a Cassette or a Card, the Movie Camera is automatically set to Demonstration Mode for introducing its functions. If any button is pressed or operated, the Demonstration Mode is cancelled. The Demonstration Mode can be started by setting [DEMO MODE] to [ON] and by exiting the Menu. To terminate the Demonstration Mode, insert a Cassette or set the [DEMO MODE] to [OFF].

[AV JACK]
AV Socket *-108-*
[REMOTE]
Remote Controller Mode *-60-*
[BEEP SOUND]
Beep Sound *-98-*
[CLOCK SET]
Date and Time Setting *-68-*
[INITIAL SET]
Initial Setting Mode *-97-*

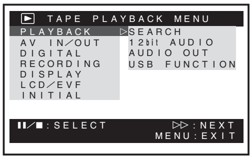
▶ [TAPE PLAYBACK MENU]

Tape Playback Mode

NV-GS15



NV-GS11

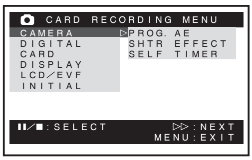


1) [PLAYBACK]
Playback Functions Sub-Menu
[SEARCH]
Index Search Mode *-84-*
[12bit AUDIO]
Audio Selector *-92-*
[AUDIO OUT]
Audio Output Mode *-102-*
[USB FUNCTION]
USB Functions Mode *-94-*
2) [AV IN/OUT]
Audio-Video Input/Output Setup Sub-Menu
[AV JACK]
AV Socket *-91-*
[A.DUB INPUT]
Audio Dubbing Input *-91-*
[DV OUT]
Analog-Digital Conversion Output *-103-*
3) [DIGITAL]
Playback Digital Setup Sub-Menu
[EFFECT ON]
Digital Effect On/Off *-85-*
[EFFECT SEL]
Digital Effect Selection *-85-*
[TITLE IN] (NV-GS15 only)
Adding a Title *-87-*
4) [CARD] (NV-GS15 only)
Card Setup Sub-Menu
[PICT QUALITY]
Picture Quality *-72-*
[CREATE TITLE]
Title Creation *-87-*
5) [RECORDING]
Recording Setup Sub-Menu
[REC SPEED]
Recording Speed Mode *-69-*
[AUDIO REC]
Audio Recording Mode *-69-*
6) [DISPLAY]
Display Setup Sub-Menu
- All of the items on the [DISPLAY] Sub-Menu are the same as those on the [DISPLAY] Sub-Menu of the [TAPE RECORDING MENU] Main-Menu.

7) [LCD/EVF]
Adjusting Brightness and Colour Level
[LCD/EVF SET]
LCD and Viewfinder Adjustment *-65-*
[EVF ON/AUTO]
Using the Viewfinder *-64-*
8) [INITIAL]
Initial Setup Sub-Menu
[BLANK SEARCH]
Blank Search *-71-*
[REMOTE]
Remote Controller Mode *-60-*
[BEEP SOUND]
Beep Sound *-98-*

[CARD RECORDING MENU] (NV-GS15 only)

Card Recording Mode



1) [CAMERA]
Camera Setup Sub-Menu
[PROG.AE]
Auto Exposure Mode *-76-*

[SHTR EFFECT]
Shutter Effect *-99-*
- You can add a sound like releasing the shutter.

[SELF TIMER]
Self-timer Recording *-73-*

2) [DIGITAL]
Digital Setup Sub-Menu

[TITLE IN]
Adding a Title *-87-*

3) [CARD]
Card Setup Sub-Menu

[PICT QUALITY]
Picture Quality *-72-*

[CREATE TITLE]
Title Creation *-87-*

[BURST MODE]
Continuous Photoshot *-72-*

4) [DISPLAY]
Display Setup Sub-Menu

[DISPLAY]
Display Mode *-97-*

[DATE/TIME]
Date and Time Indication *-97-*

5) [LCD/EVF]
Adjusting Brightness and Colour Level
- All of the items on the [LCD/EVF] Sub-Menu are the same as those on the [LCD/EVF] Sub-Menu of the [TAPE RECORDING MENU].

6) [INITIAL]
Initial Setup Sub-Menu

[AV JACK]
AV Socket *-108-*

[REMOTE]
Remote Controller Mode *-60-*

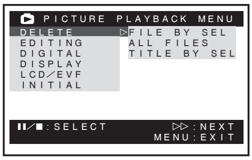
[BEEP SOUND]
Beep Sound *-98-*

[CLOCK SET]
Date and Time Setting *-68-*

[INITIAL SET]
Initial Setting Mode *-97-*

[PICTURE PLAYBACK MENU] (NV-GS15 only)

Picture Playback Mode



1) [DELETE]
Deleting a File Sub-Menu

[FILE BY SEL]
Selecting and Deleting a File *-89-*

[ALL FILES]
Deleting All Files *-89-*

[TITLE BY SEL]
Selecting and Deleting a Title *-89-*

2) [EDITING]
Editing a File Sub-Menu

[FILE LOCK]
Setting the Lock *-89-*

[DPOF SET]
Setting DPOF *-88-*

[CARD FORMAT]
Formatting a Card *-89-*

3) [DIGITAL]
Playback Digital Setup Sub-Menu

[TITLE IN]
Adding a Title *-87-*

4) [DISPLAY]
Display Setup Sub-Menu
- All of the items on the [DISPLAY] Sub-Menu are the same as those on the [DISPLAY] Sub-Menu of the [TAPE RECORDING MENU].

5) [LCD/EVF]
Adjusting Brightness and Colour Level

[LCD/EVF SET]
LCD and Viewfinder Adjustment *-65-*

[EVF ON/AUTO]
Using the Viewfinder *-64-*

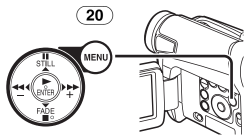
6) [INITIAL]
Initial Setup Sub-Menu

[AV JACK]
AV Socket *-108-*

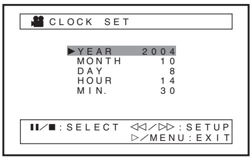
[REMOTE]
Remote Controller Mode *-60-*

Setting Date and Time

Since the internal clock of the Movie Camera has a slight imprecision, make sure to check the time before recording.



1 Set [INITIAL] >> [CLOCK SET] >> [YES].



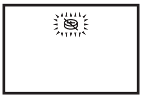
2 Press the [❚❚/■] Button to select [YEAR], [MONTH], [DAY], [HOUR] or [MIN.] and press the [◀◀/▶▶] Button to set it to the desired value.
- Year will cycle in the order shown below. 2000, 2001, ..., 2089, 2000, ...

3 Press the [MENU] Button (20) to finish setting the date and time.
- The clock operation starts from [00] second.

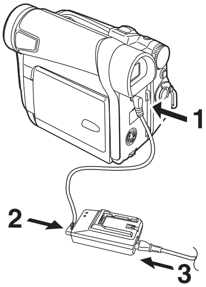
- If the built-in battery is weak, the [ ] Indication flashes. In this case, charge the built-in battery.
- The clock uses the 24-hour system.

Internal Lithium Battery Recharge

The internal lithium battery sustains the operation of the clock. When the [ ] Indication flashes, the internal lithium battery is near exhaustion.



1 Connect the AC Adaptor to the Movie Camera with the power turned off and then connect to the AC Mains socket.



- After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.

LP Mode

A desired recording speed can be selected with [REC SPEED] on the [RECORDING] Sub-Menu.
If LP Mode is selected, the recording time becomes 1.5 times longer than that of SP Mode.
Although the image quality does not decrease with the LP Mode recording, mosaic-pattern noise may appear on a playback image, or some normal functions may be restricted.
- The contents that are recorded in LP Mode are not completely compatible with other equipment.
- Audio dubbing is not possible with LP Mode. (-91-)

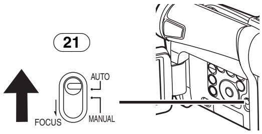
Audio Recording Mode

The sound quality of the recorded sound can be selected with [AUDIO REC] on the [RECORDING] Sub-Menu.
High sound-quality recording is possible with "16 bit 48 kHz 2 track" Mode. With the "12 bit 32 kHz 4 track" Mode, the original sound can be recorded on 2 tracks in stereo, while the other 2 tracks can be used for Audio Dubbing.

Recording Mode

About Recording

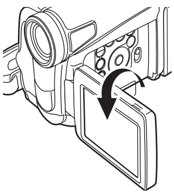
When recording pictures on a tape, set the Mode Dial to Tape Recording Mode [ ].
When recording still pictures on a card, set the Mode Dial to Card Recording Mode [ ] (NV-GS15 only).
When recording with the [AUTO/MANUAL/FOCUS] Switch (21) set to [AUTO], the Movie Camera automatically adjusts the focus and white balance. In some cases, they cannot be adjusted automatically and need to be adjusted manually. (-77-, -79-)



- **Before turning on the power, remove the Lens Cap. If the Lens Cap is still attached when the power is turned on, Automatic White Balance Adjustment (-77-) may not function correctly.**
- When the Recording Pause Mode continues for more than 6 minutes, the power is turned off automatically for tape protection and power conservation. (If the AC Adaptor is used, the power is turned off only when the tape is inserted in Tape Recording Mode.) When the tape is inserted in Tape Recording Mode and if the Recording Pause Mode continues for more than 6 minutes, the power is turned off automatically.
  To resume recording from this condition, turn off, then turn on the power again.
- When the Movie Camera is connected to a personal computer with a USB Cable, Standby mode is not available.

■ Recording Yourself

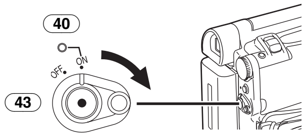
By opening the LCD Monitor and rotating it frontward (to the lens side), you can let the subject in front of the Movie Camera monitor the shot while recording is in progress.



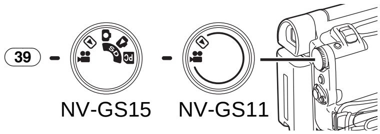
- When the LCD Monitor is opened, the Viewfinder is disabled automatically. However, when the LCD Monitor is rotated frontward, the image is also shown in the Viewfinder.
- If you prefer to have the image on the LCD Monitor to look like an image in a mirror, set [SELF REC] on the [LCD/EVF] Sub-Menu to [MIRROR]. Images are recorded normally and no left and right reversal occurs.

Recording on a Tape

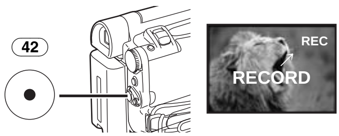
1 Set the [OFF/ON] Switch (43) to [ON].
- The [POWER] Lamp (40) lights up.



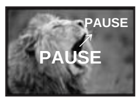
2 Set the Mode Dial (39) to Tape Recording Mode.



3 Press the Recording Start/Stop Button (42).
- Recording starts.
- After the [RECORD] is displayed, it changes to [REC].



4 Press the Recording Start/Stop Button (42) again to pause the recording.
- The [PAUSE] Indication is displayed.

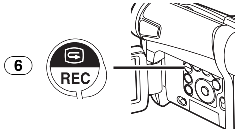


Recording "Simultaneous Motion/Still Record Mode" (NV-GS15 only)

- Even if the Mode Dial is set to Tape Recording Mode and the recording to a tape is in progress, you can also record a still picture on a card by pressing the [PHOTO SHOT] Button.

To Check the Recording

By pressing the [ ] Button (6) briefly in the Recording Pause Mode, you can play back the last few seconds of the recorded scene.



- The [CHK] Indication is displayed. After checking, the Movie Camera resumes the Recording Pause Mode.

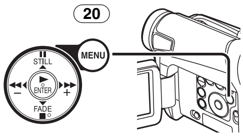
- For other notes concerning this item, see -99-.

Finding the End of Recording

(Blank Search Function)

The Blank Search Function aids you to locate the end of the recording on the Cassette quickly.

1 Set [TAPE RECORDING MENU] or [TAPE PLAYBACK MENU] >> [INITIAL] >> [BLANK SEARCH] >> [YES].



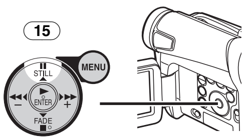
- The [BLANK] Indication appears during the Blank Search.
- Approximately 1 second before the last recorded scene, the Movie Camera switches to the Recording Pause Mode or the Still Playback Mode.
- If there is no blank left on the Cassette, the Movie Camera stops at the end of the tape.

To Cancel Blank Search Before Completion

Press the [■] Button.

Digital Still Picture

When the [STILL] Button (15) is pressed, images become still pictures. When the button is pressed again, the Digital Still Picture Mode is cancelled.



- We recommend that you press the [STILL] Button first at the position where you wish to record the still picture so as to enter the Digital Still Picture Mode and then press the [PHOTO SHOT] Button.

Progressive Photoshot

When the [P] Indication is displayed, Progressive Photoshot Function works.
You can record still pictures as frame still pictures with higher quality by this function.

- The Progressive Photoshot Function may not be activated depending on the function you use. (-97-)

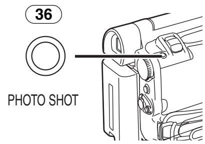
NV-GS15 only:

- To record still pictures with higher quality, we recommend setting to the Card Recording Mode. (To activate the progressive function regardless of the function you use)
- When you record the tape and the card simultaneously, the progressive function is not activated.

Recording a Still Picture on a Tape (Photoshot) (NV-GS11 only)

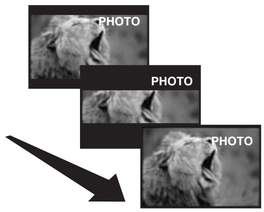
Still pictures can be recorded from the Movie Camera lens.

1 Press the [PHOTO SHOT] Button (36) in the Recording Pause Mode.



- The Movie Camera records a still picture for about 7 seconds and then switches back to the Recording Pause Mode.

- If you set [SHTR EFFECT] on the [CAMERA] Sub-Menu to [ON], you can add image and a sound like releasing the shutter.



- Photoshot Recording results in slightly inferior image quality.

Continuous Photoshot

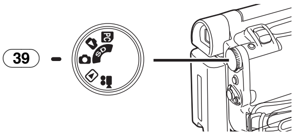
If you set [SHTR EFFECT] on the [CAMERA] Sub-Menu to [ON] and keep the [PHOTO SHOT] Button pressed, the Movie Camera will continuously record still pictures in approximately 0.7 seconds intervals until the button is released.

- The screen blinks and, at the same time, a shutter clicking sound is recorded.

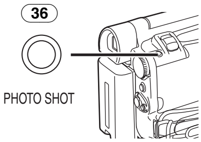
Recording a Still Picture on a Card (Photoshot) (NV-GS15 only)

Still pictures can be recorded on the Memory Card from the Movie Camera.

1 Set the Mode Dial (39) to Card Recording Mode.



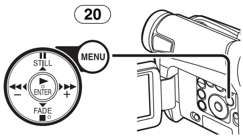
2 Press the [PHOTO SHOT] Button (36).



- The [PICTURE] Indication lights up in red.

Selecting the Quality of Photoshot images

1 Set [CARD RECORDING MENU] >> [CARD] >> [PICT QUALITY] >> a desired image quality.



Maximum number of images recordable on the supplied Card (8MB)

[FINE] (high image quality): approximately 45 pictures
[NORMAL] (normal image quality): approximately 95 pictures
[ECONOMY] (low image quality): approximately 190 pictures

- These figures vary depending on the subject being photographed.

Maximum number of still pictures recordable on an SD Memory Card (optional)

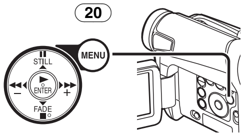
PICTURE QUALITY	FINE	NORMAL	ECONOMY
16 MB	100	200	400
32 MB	220	440	880
64 MB	440	880	1760
128 MB	880	1760	3520
256 MB	1760	3520	7040
512 MB	3520	7040	14080

- These figures vary depending on the subject being photographed.

■ Continuous Photoshot

The still pictures can be recorded on a Card at a regular intervals.

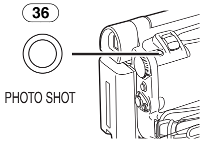
1 Set [CARD RECORDING MENU] >> [CARD] >> [BURST MODE] >> [ON].



- The [▭] Indication appears.



2 Press the [PHOTO SHOT] Button (36).



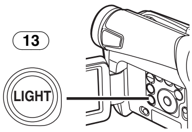
- When [ON] is selected, the still pictures can be recorded in approximately 0.5 second intervals until the [PHOTO SHOT] Button is released or 10 pictures are recorded.

- For other notes concerning this item, see -99-.

Recording with the Built-in LED Video Light

To brighten the natural colours in a scene. Gain Up mode works with the Built-in LED Video Light to enhance the light's brightness.

1 Press the [LIGHT] Button (13). ❶



- The Built-in LED Video Light lights and the Gain Up mode is set to on.
- Gain Up mode will be brighter than when only the LED Video Light is on, however, ghost images will appear.

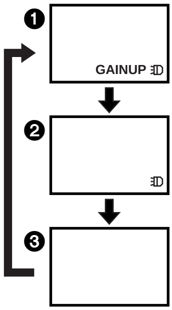
2 Press the [LIGHT] Button (13). ❷

- Gain Up mode is set to off.
- To eliminate ghost images, use this mode.

3 Press the [LIGHT] Button (13). ❸

- The LED Video Light turns off.

- Pressing the [LIGHT] Button again returns to ❶.

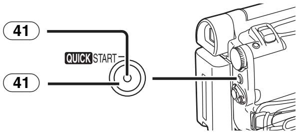


- For other notes concerning this item, see *-99-*.

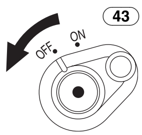
Quick Start

By pressing the [QUICK START] Button (41), and the Movie Camera will be ready for recording in approximately 1.3 seconds after the Movie Camera is turned on.

1 Press the [QUICK START] Button (41).
- The Quick Start Recording Lamp (41) lights up.



2 Set the [OFF/ON] Switch (43) to [OFF].
- The Quick Start Recording Lamp remains lit.



3 Set the [OFF/ON] Switch (43) to [ON].
- The Movie Camera will be ready for recording in approximately 1.3 seconds.

To Cancel the Quick Start

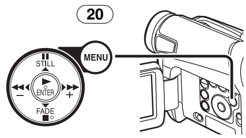
Keep the [QUICK START] Button pressed for approximately 2 seconds and make sure the Quick Start Recording Lamp is not lit.

- For other notes concerning this item, see *-99-*.

Self-timer Recording

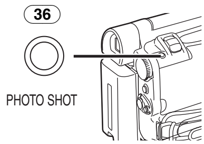
When you set the self-timer, the recording starts automatically after 10 seconds.

1 Set [TAPE RECORDING MENU] or [CARD RECORDING MENU] (NV-GS15 only) >> [CAMERA] >> [SELF TIMER] >> [ON].



- The [⏲] Indication appears.

2 Press the [PHOTO SHOT] Button (36).



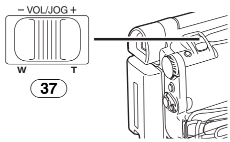
- The [⏲] Indication flashes and the recording starts after 10 seconds.
- You can also use the Continuous Photoshot (NV-GS15 only). (*-72-*)

- For other notes concerning this item, see *-99-*.

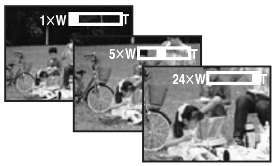
Zoom In/Out Functions

It gives special effects to the picture by recording objects close by or with wide-angle shot.

1 For wide-angle shots (zoom out): Push the [W/T] Lever (37) towards [W]. For close-ups (zoom in): Push the [W/T] Lever towards [T].



- Zoom Magnification Indication is displayed for a few seconds.



To Take Close-up Shots of Small Subjects

(Macro Close-up Function)

When the zoom magnification is 1×, the Movie Camera can focus on a subject that is as close as approximately 20 mm from the Lens. Small subjects like insects can be recorded with this function.

To Use the Zoom Microphone Function

Along with the zooming operation, the microphone's directional angle and sensitivity are varied for recording sounds.

- Set [TAPE RECORDING MENU] >> [RECORDING] >> [ZOOM MIC] >> [ON]. (The [Z.MIC] Indication is displayed.)

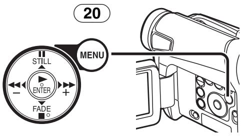


- For other notes concerning this item, see -100-.

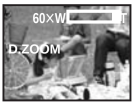
Digital Zoom Function

This function is useful when you want to record close-up shots of subjects located beyond a normal zoom range of 1× to 24× magnification. With the Digital Zoom Function, you can select a magnification from 60× up to 800×.

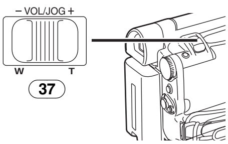
1 Set [TAPE RECORDING MENU] >> [CAMERA] >> [D.ZOOM] >> [60×] or [800×].



- 60×: Digital zooming to 60×
- 800×: Digital zooming to 800×



2 Push the [W/T] Lever (37) towards [W] or towards [T] to zoom in or out.



To Cancel the Digital Zoom Function

Set [TAPE RECORDING MENU] >> [CAMERA] >> [D.ZOOM] >> [OFF].

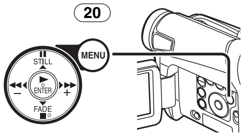
- For other notes concerning this item, see -100-.

Image Stabilizer Function

If the Movie Camera is shaken while recording, the camera shake in the image can be corrected.

- If the Movie Camera shakes too much, the images may not be stabilized.

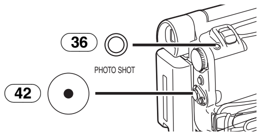
1 Set [TAPE RECORDING MENU] >> [CAMERA] >> [SIS] >> [ON].



- The [ ] Indication appears.



2 Press the Recording Start/Stop Button (42) or [PHOTO SHOT] Button (36) to start recording.



To Cancel Image Stabilizer Function

Set [TAPE RECORDING MENU] >> [CAMERA] >> [SIS] >> [OFF].

- For other notes concerning this item, see -100-.

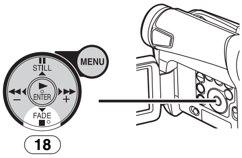
Fade In/Out Functions

Fade In

Fade In brings out images and sounds gradually from a black screen at the beginning of a scene.

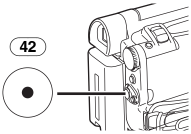


1 Keep pressing the [FADE] Button (18) during the Recording Pause Mode.



- The image fades out gradually.

2 When the image is completely gone, press the Recording Start/Stop Button (42) to start recording.

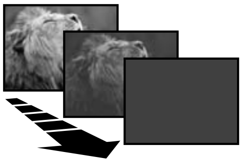


3 Release the [FADE] Button (18) about 3 seconds after starting recording.

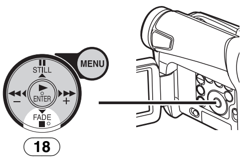
- The image reappears gradually.

Fade Out

Fade Out causes images and sounds to disappear gradually, leaving a black screen at the end of a scene.

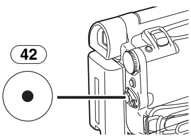


1 Keep pressing the [FADE] Button (18) while recording.



- The image fades out gradually.

2 When the image is completely gone, press the Recording Start/Stop Button (42) to stop recording.



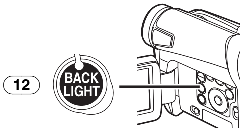
3 Release the [FADE] Button (18).

- The still picture cannot fade in or fade out.

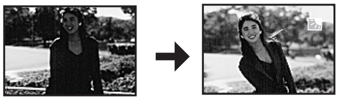
Backlight Compensation Function

This prevents the subject from being recorded too darkly when backlit. (Backlight is the light that shines from behind the subject being recorded.)

1 Press the [BACK LIGHT] Button (12).



- The [ ] Indication flashes and then is displayed.
- The entire screen becomes brighter.



To Resume Normal Recording

Press the [BACK LIGHT] Button.

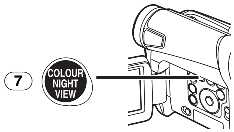
- For other notes concerning this item, see -100-.

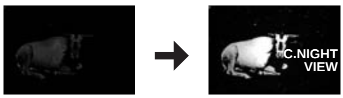
Night View Functions

Colour Night View Function

This function allows you to record colour images brightly in a dark place.

1 Press the [COLOUR NIGHT VIEW] Button (7).





- The [C.NIGHT VIEW] Indication appears.

To Cancel the Night View Functions

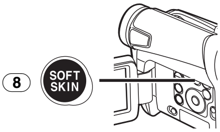
Press the [COLOUR NIGHT VIEW] Button repeatedly.

- For other notes concerning this item, see -100-.

Soft Skin Function

This enables you to record skin colours in a softer tone. In order to get the best result, avoid background colours similar to the skin colour of the subject. Otherwise, this may result in a softer background lacking in detail.

1 Press the [SOFT SKIN] Button (8).



- The [SOFT SKIN] Indication appears.



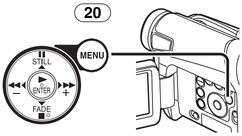
- To obtain the best effect, we recommend to take the bust shot, so that the upper part from the breast of the subject can be framed in the screen.

To Cancel the Soft Skin Function
Press the [SOFT SKIN] Button.

Wind Noise Reduction Function

This function reduces the sound of wind hitting the microphone when recording.

1 Set [TAPE RECORDING MENU] >> [RECORDING] >> [WIND CUT] >> [ON].



- The [WIND CUT] Indication appears.



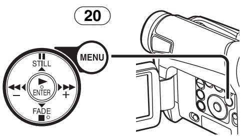
To Cancel the Wind Noise Reduction Function
Set [TAPE RECORDING MENU] >> [RECORDING] >> [WIND CUT] >> [OFF].

- For other notes concerning this item, see *-100-*.

Cinema Function

This function is for recording in a cinema-like screen.

1 Set [TAPE RECORDING MENU] >> [RECORDING] >> [CINEMA] >> [ON].



- Black bars appear at the top and bottom of the screen.



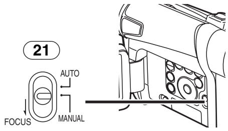
To Cancel the Cinema Mode
Set [TAPE RECORDING MENU] >> [RECORDING] >> [CINEMA] >> [OFF].

- For other notes concerning this item, see *-100-*.

Recording in Special Situations

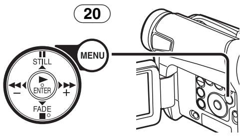
(Programme AE)
You can select optimal automatic exposure under specific recording situations.

1 Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].



- The [MNL] Indication appears.

2 Set [TAPE RECORDING MENU] or [CARD RECORDING MENU] (NV-GS15 only) >> [CAMERA] >> [PROG.AE] >> a desired mode ([ ], [ ], [ ], [ ] or [ ]).



- The Indication of the selected Mode appears.

1)


2)


3)


4)


5)


1) [ ] Sports Mode
- For recording scenes involving quick movements, such as sports scenes.

2) [ ] Portrait Mode
- For bringing up people clearly from the background.

3) [ ] Low Light Mode
- For recording a dark scene brighter.

4) [ ] Spotlight Mode

- For recording a subject under a spotlight in a party, theatre, etc.

5) [ ] Surf & Snow Mode

- For recording in a glaring surrounding, such as ski slopes, beaches, etc.

To Cancel the Programme AE Function

Set the [PROG.AE] on the [CAMERA] Sub-menu to [OFF]. Or, set the [AUTO/MANUAL/FOCUS] Switch to [AUTO].

- For other notes concerning this item, see *-100-*.

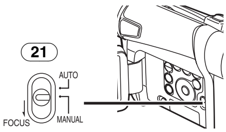
Recording in Natural Colours

(White Balance)

Depending on the scene or lighting conditions, the Automatic White Balance Adjustment Mode may not be able to bring out natural colours. In this case, the white balance can be adjusted manually.

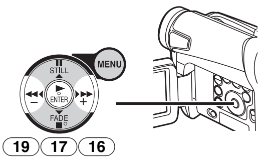
When the Movie Camera is turned on with the Lens Cap on, the Automatic White Balance Adjustment may not function properly. Please turn on the Movie Camera after removing the Lens Cap.

1 Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].



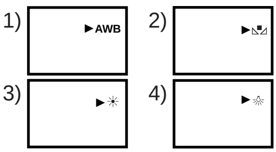
- The [MNL] Indication appears.

2 Press the [ENTER] Button (17).



- The [AWB] Indication appears.

3 Press the [▶▶] Button (16) or [◀◀] Button (19) to select a desired White Balance Mode.



1) Automatic White Balance Adjustment [AWB]
2) The white balance setting that was previously set manually [ ]
3) Outdoor Mode [☀]
4) Indoor Mode (recording under incandescent lamp) [ ]

To Resume Automatic Adjustment

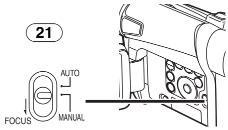
Press the [▶▶] Button (16) or [◀◀] Button (19) until the [AWB] Indication appears. Or, set the [AUTO/MANUAL/FOCUS] Switch to [AUTO].

Adjusting White Balance Manually

White Balance Adjustment recognizes the colour of light and adjusts so that white will appear pure white. The Movie Camera determines the hue of light that comes through the Lens and White Balance Sensor, thereby judging the recording condition, and selects the closest hue setting. This function is called Automatic White Balance Adjustment.

For light outside the functional Auto White Balance Adjustment range, use the Manual White Balance Adjustment Mode.

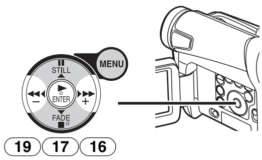
1 Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].



- The [MNL] Indication appears.

2 Point the Movie Camera at a full-screen white subject.

3 Press the [ENTER] Button (17).



- The [AWB] Indication appears.

4 Press the [▶▶] Button (16) or [◀◀] Button (19) until the [ ] Indication is displayed.



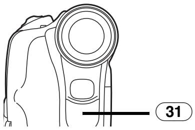
5 Keep pressing [ENTER] Button (17) until the [ ] Indication stops flashing.

To Resume Automatic Adjustment

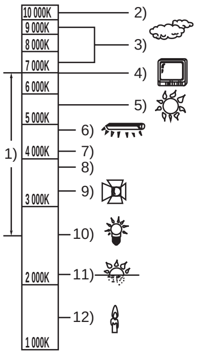
Press the [▶▶] Button (16) or [◀◀] Button (19) until the [AWB] Indication is displayed. Or, set the [AUTO/MANUAL/FOCUS] Switch to [AUTO].

About White Balance Sensor

The White Balance Sensor (31) determines the nature of the light source during recording.



- Do not cover the White Balance Sensor with your hand during recording because White Balance will not function normally.



Outside of the effective range of Automatic White Balance Adjustment, the image will become reddish or bluish. Even within the effective range of Automatic White Balance Adjustment, the Automatic White Balance Adjustment may not function properly if there is more than one light source. In this case, adjust the White Balance.

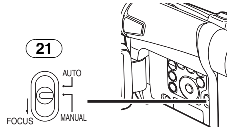
1) The effective range of Automatic White Balance Adjustment on this Movie Camera
2) Blue sky
3) Cloudy sky (rain)
4) TV screen
5) Sunlight
6) White fluorescent lamp
7) 2 hours after sunrise or before sunset
8) 1 hour after sunrise or before sunset
9) Halogen light bulb
10) Incandescent light bulb
11) Sunrise or sunset
12) Candlelight

- For other notes concerning this item, see -101-.

Manual Shutter Speed Adjustment

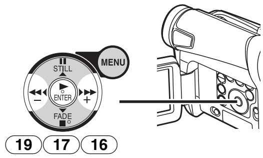
Useful for recording fast-moving subjects.

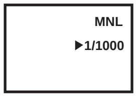
1 Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].



- The [MNL] Indication appears.

2 Press the [ENTER] Button (17) until the Shutter Speed Indication appears.





3 Press the [▶▶] Button (16) or [◀◀] Button (19) to adjust the shutter speed.

Range of Shutter Speed Adjustment

1/50–1/8000 s in Tape Recording Mode
1/50–1/500 s in Card Recording Mode (NV-GS15 only)
The standard shutter speed is 1/50 s.
Selecting a speed closer to [1/8000] causes the shutter speed to be faster.

To Resume Automatic Adjustment

Set the [AUTO/MANUAL/FOCUS] Switch to [AUTO].

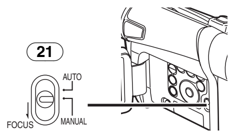
- For other notes concerning this item, see -101-.

Manual Iris Adjustment

(F Number)

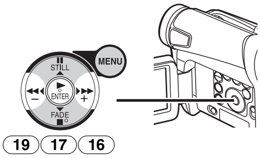
You can use this function when the screen is too bright or too dark.

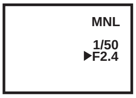
1 Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].



- The [MNL] Indication appears.

2 **Press the [ENTER] Button (17) until the Iris Indication appears.**





3 **Press the [▶▶] Button (16) or [◀◀] Button (19) to adjust the iris.**

Range of Iris Adjustment

CLOSE (Closed), F16, ..., F2.0,
OP (Opened)+0dB, ..., OP+18dB

When a value closer to [CLOSE] is selected, the image becomes darker.

When a value closer to [OP+18dB] is selected, the image becomes brighter.

The value to which +dB is attached indicates a Gain-up value. If this value is too large, the quality of the image deteriorates.

To Resume Automatic Adjustment

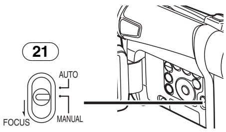
Set the [AUTO/MANUAL/FOCUS] Switch to [AUTO].

- For other notes concerning this item, see -101-.

Manual Focus Adjustment

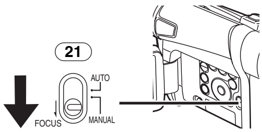
Focus can be adjusted manually for recording in a situation where auto focus may not function well.

1 **Set the [AUTO/MANUAL/FOCUS] Switch (21) to [MANUAL].**



- The [MNL] Indication appears.

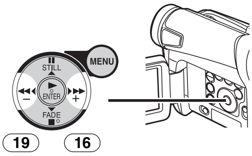
2 **Slide the [AUTO/MANUAL/FOCUS] Switch (21) to [FOCUS].**



- The [▶MF] Indication (Manual Focus Mode) appears.



3 **Press the [▶▶] Button (16) or [◀◀] Button (19) to adjust the focus.**



- If you keep pressing the [▶▶] Button or [◀◀] Button, the speed of adjusting becomes faster.

To Resume Automatic Adjustment

Set the [AUTO/MANUAL/FOCUS] Switch to [AUTO] or [FOCUS].

Digital Effect Functions

This Movie Camera is equipped with Digital Effect Functions that add special effects to the scene.

Digital Effects 1 [EFFECT1]



1) Multi Mode [MULTI]
2) Picture-In-Picture Mode [P-IN-P]
3) Wipe Mode [WIPE]
4) Mix Mode [MIX]
5) Strobe Mode [STROBE]
   - It records images with a stroboscopic effect.
6) Trailing Effect Mode [TRAIL]
   - It records images with a trailing effect.
7) Mosaic Mode [MOSAIC]
   - It produces a mosaic-like image.

8) Mirror Mode [MIRROR]
   - The right half of an image becomes a mirror image of the left half.
9) Stretch Mode [STRETCH]
   - The Picture is expanded horizontally.
10) Slim Mode [SLIM]
   - The picture is expanded vertically.

Digital Effects 2 [EFFECT2]

11) NEGA

12) SEPIA

13) B/W

14) SOLARI


11) Negative Mode [NEGA]
   - The colours of the recorded image are inverted as seen in a negative.
12) Sepia Mode [SEPIA]
   - It records a scene with a brownish tint, like the colour of old pictures.
13) Black & White Mode [B/W]
   - It records an image in black and white.
14) Solarisation Mode [SOLARI]
   - It records an image with a painting-like effect.

To Select a Desired Digital Effect

Set [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] or [EFFECT2] >> a desired Digital Effect.

To Cancel the Digital Effect

Set [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] or [EFFECT2] >> [OFF].
- If the Movie Camera is turned off, the [EFFECT2] settings are cancelled.

- For other notes concerning this item, see -101-.

Multi-Picture Mode

Strobe Multi-Picture Mode:



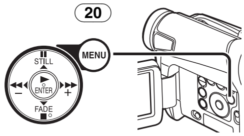
You can capture and record 9 consecutive small still pictures.

Manual Multi-Picture Mode:



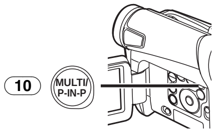
You can manually capture and record 9 small still pictures.

1 Set [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [MULTI].



2 Set [TAPE RECORDING MENU] >> [DIGITAL] >> [MULTI MODE] >> [STROBE] or [MANUAL].

3 Press the [MULTI] Button (10).



- If [MANUAL] is selected, press the [MULTI] Button at each scene you want to capture.

Deleting All the Captured Multi-Pictures

While 9 multi-pictures are displayed, press the [MULTI] Button.
- If [MANUAL] has been selected, press the [MULTI] Button after 9 pictures are displayed.

To Display the Multi-Pictures Again

Press the [MULTI] Button for 1 second or longer.

To Delete Multi-Pictures One by One

(When pictures were captured in [MANUAL])

When the [MULTI] Button is pressed for 1 second or longer while the still pictures are displayed, the pictures captured last is deleted continuously.
- After still pictures are deleted one by one, they cannot be displayed again.

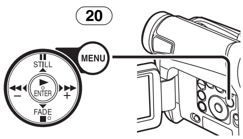
- For other notes concerning this item, see -101-.

Picture-in-Picture Mode

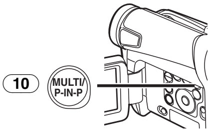


You can display a sub-screen (still picture) inside the screen.

1 Set [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [P-IN-P].



2 Aim the Movie Camera at the scene you want to capture and press the [P-IN-P] Button (10) to insert a small still picture.



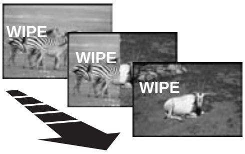
- A small still picture is displayed in a normal picture.
- If the [P-IN-P] Button is pressed again, the small still picture is cleared.

- For other notes concerning this item, see *-101-*.

Wipe Mode and Mix Mode

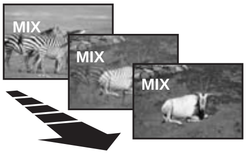
Wipe Mode:

Like drawing a curtain, the still picture of the last recorded scene gradually changes to the moving image of a new scene.

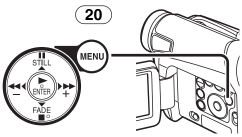


Mix Mode:

While the moving image of a new scene fades in, the still image of the last recorded scene gradually fades out.

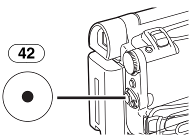


1 Set [TAPE RECORDING MENU] >> [DIGITAL] >> [EFFECT1] >> [WIPE] or [MIX].



- The [WIPE] or [MIX] Indication appears.

2 Press the Recording Start/Stop Button (42) to start recording.



3 Press the Recording Start/Stop Button (42) to pause the recording.

- The last scene is stored in memory. The [WIPE] or [MIX] Indication changes to [WIPE] or [MIX].

4 Press the Recording Start/Stop Button (42) to restart the recording.

- The last image of the previous scene gradually changes to the new scene.

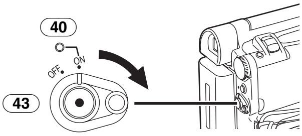
- For other notes concerning this item, see *-101-*.

Playback Mode

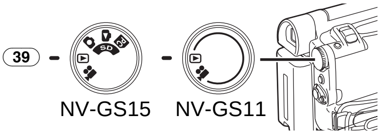
Playing Back a Tape

The recorded scene can be played back immediately after the recording.

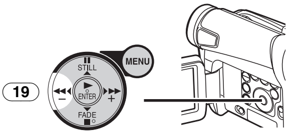
1 Set the [OFF/ON] Switch (43) to [ON].
- The [POWER] Lamp (40) lights up.



2 Set the Mode Dial (39) to Tape Playback Mode.

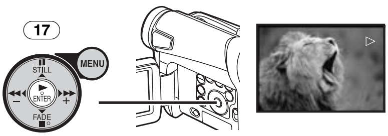


3 Press the [◀◀] Button (19) to rewind the tape.



- Rewind the tape to the point where you want to start playback.
- When the tape reaches the beginning, rewinding stops automatically.

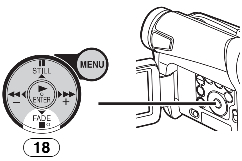
4 Press the [▶] Button (17) to start playback.
- The [▷] Indication appears.



- If a cassette recorded with a copyright protection signal is played back, the picture is distorted by mosaic-like patterns.

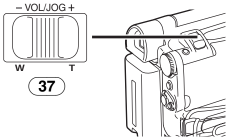
To Stop Playback

Press the [■] Button (18).

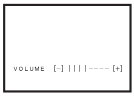


■ Adjusting the Sound Volume

To adjust the volume, push the [W/T] Lever (37) to display the [VOLUME] Indication. Push the [W/T] Lever towards [T] to increase the volume or push the [W/T] Lever towards [W] to decrease the volume. The [VOLUME] Indication goes off after the adjustment is finished.



To adjust the volume with the Remote Controller, press the [T] or [W] Button to display the [VOLUME] Indication. Press the [T] Button to increase the volume or press the [W] Button to decrease the volume. The [VOLUME] Indication goes off after the adjustment is finished.

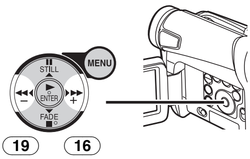


- The sound volume cannot be adjusted using the Remote Controller in Playback Zoom Mode. (-*84*-)

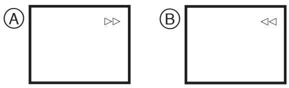
- For other notes concerning this item, see -*101*-.

Finding a Scene You Want to Play Back

■ Cue/Review Playback



If the [▶▶] Button (16) or [◀◀] Button (19) is pressed during Playback, it turns to Cue Playback Ⓐ or Review Playback Ⓑ.

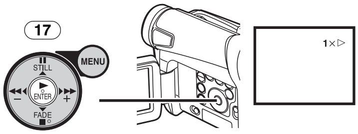


- If the Button is held continuously, it turns to Cue Playback or Review Playback until you release it.

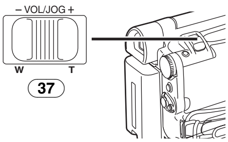
■ Variable Speed Search Function

The speed of Cue Playback or Review Playback can be varied.

1 During playback, press the [▶] Button (17).
- The [1×▷] Indication appears.



2 Push the [W/T] Lever (37) to select a desired search speed.



The following 6 playback speeds are available for the Variable Speed Search Function in both the fast-forward and rewind directions:
1/5× (slow playback in SP Mode only), 1/3× (slow playback in LP Mode only), 1×, 2×, 5×, 10× and 20×.
- This function works by pressing the [VAR. SEARCH] and cursor buttons ([▲, ▼]) on the Remote Controller. (-58-)

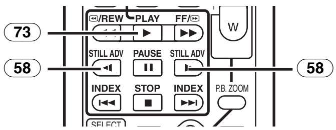
To Resume Normal Playback

Press the [▶] Button (17).

- During Cue or Review Playback, fast-moving images may show a noise like a mosaic.
- The sound is muted during search.

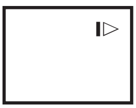
Slow Motion Playback

This Movie Camera can play back at a slow speed.



1 Press the [▶] Button (73).

2 Press the [◂I] Button or [I▸] Button (58) on the Remote Controller.
- The [I▷] or [◁I] Indication appears.



- When the [◂I] Button is pressed, Slow Motion Playback proceeds in the reverse direction. When the [I▸] Button is pressed, Slow Motion Playback proceeds in the forward direction.

Scenes recorded in the SP Mode are played back at approximately 1/5th of the normal speed.
Scenes recorded in the LP Mode are played back at approximately 1/3rd of the normal speed.

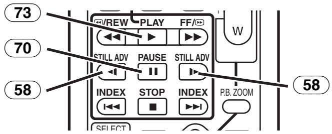
To Resume Normal Playback

Press the [▶] Button (73).

- If the Movie Camera is left in the Slow Playback Mode for more than 12 minutes, the Movie Camera switches to the Stop Mode to protect the video heads from excessive wear and tear.

Still Playback/Still Advance Playback

This Movie Camera is capable of still picture playback and frame-advance playback.



1 Press the [▶] Button (73).

2 Press the [❚❚] Button (70).
- The playback image stops in the Still Playback Mode.

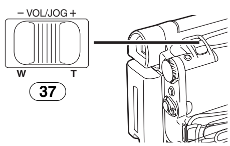
3 Press the [◂I] Button or [I▸] Button (58) on the Remote Controller.
- With each press of the [◂I] Button, still pictures advance in the reverse direction. With each press of the [I▸] Button, still pictures advances in the forward direction. If one of the buttons continues to be pressed, still pictures advance continuously 1 frame at a time until the button is released.

To Resume Normal Playback

Press the [▶] Button (73).

■ Playback with Zoom Lever

By pushing the [W/T] Lever (37) of the Movie Camera in the Still Playback Mode, still pictures can be advanced one frame at a time in the forward or backward direction.
If you keep pushing the Lever, still pictures advances continuously.



- If the Movie Camera is left in the Still Playback Mode for more than 6 minutes, the Movie

Camera switches to the Stop Mode to protect the video heads from excessive wear and tear.

Index Search Functions

To facilitate searching for desired scenes, this Movie Camera automatically records index signals during recording, as explained in the following.

Photoshot Index Signal

NV-GS11:

These signals are automatically recorded whenever still pictures are taken in Photoshot Mode. (*-71-*) Photoshot Index Signals are not recorded on still pictures recorded in Continuous Photoshot Mode.

NV-GS15:

These signals are automatically recorded when still pictures on a card is recorded to a tape.

Scene Index Signal

Scene Index Signals are automatically recorded when you start recording after inserting a Cassette.

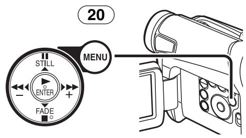
- If [SCENE INDEX] of [RECORDING] Sub-Menu on the [TAPE RECORDING MENU] is set to [2HOUR], an index signal is recorded when recording is restarted after an elapse of 2 hours or longer. If it is set to [DAY], an index signal is recorded when recording is restarted after the date has changed since the last recording. (While the index signal is being recorded, the [INDEX] Indication flashes for a few seconds.)



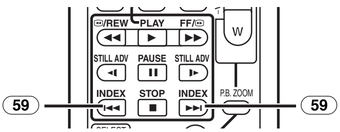
- If the Movie Camera is switched from the Tape Playback Mode to Tape Recording Mode or if the date and time is set before the start of recording, the index signal is not recorded.

■ Photoshot Index Search

1 Set [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [SEARCH] >> [PHOTO].



2 Press the [▶▶|] Button or [|◀◀] Button (59) on the Remote Controller.



- With each press of the corresponding button, still pictures recorded in Photoshot Mode are searched.
- Sounds are played back for approximately 4 seconds.

■ Scene Index Search

1 Set [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [SEARCH] >> [SCENE].

2 Press the [▶▶|] Button or [|◀◀] Button (59) on the Remote Controller.

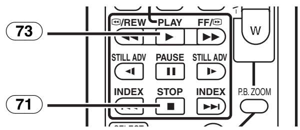
- When the corresponding button is pressed once, the [S 1] Indication appears, and searching for the subsequent scene marked with an index signal starts. Each time the button is pressed after the start of Scene Index Search, the indication changes, from [S 2] to [S 9], and the beginning of the scene corresponding to the selected number will be searched.



- Up to 9 scene numbers can be selected.

Continuous Index Search

If the [▶▶|] Button or the [|◀◀] Button (59) is pressed for 2 seconds or longer, search can be continued at several-second intervals. (To cancel, press the [▶] Button (73) or the [■] Button (71).)

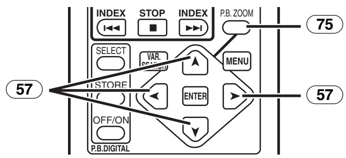


- For other notes concerning this item, see *-102-*.

Playback Zoom Function

A part of the image can be enlarged up to 10 times during playback.

1 During playback, press the [P.B. ZOOM] Button (75) on the Remote Controller.

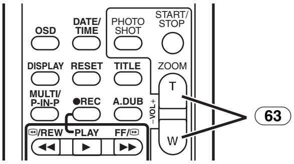


- The centre of the image is enlarged to approximately 2 times.



To Change the Zoom Magnification

2 Change the magnification by pressing the [W] Button or [T] Button (63) on the Remote Controller.



To Change the Enlarging Area of an Image

3 Press the Arrow Button (▲, ▼, ◄, ►) (57) on the Remote Controller that points to the area you want to enlarge.

To Cancel the Playback Zoom Function

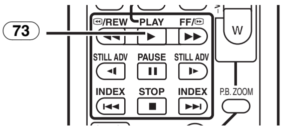
Press the [P.B. ZOOM] Button (75) on the Remote Controller.

- For other notes concerning this item, see *-102-*.

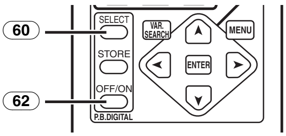
Playback Digital Effect Functions

During playback, special digital effects can be added to the recorded pictures. The same effects as those of Digital Effects 1 and 2, which are used during recording, are obtained.

1 Press the [►] Button (73).



2 Press the [SELECT] Button (60) on the Remote Controller to select a desired digital effect.



- When the [SELECT] Button is pressed repeatedly, the digital effect selection changes.
- The same setting can be done using [EFFECT SEL] Sub-Menu on the [TAPE PLAYBACK MENU].

To suspend Playback Digital Effect Temporarily

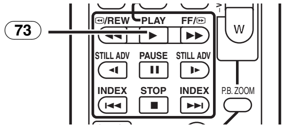
Press the [OFF/ON] Button (62) to suspend or restart the digital effect. When the digital effect is paused temporarily, the selected effect's indication flashes.

To Cancel the Digital Effect

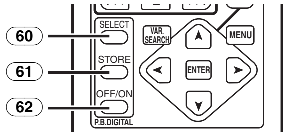
Press the [SELECT] Button (60) on the Remote Controller and clear the digital effect indication.

■ Wipe Mode and Mix Mode

1 Press the [►] Button (73).



2 Press the [SELECT] Button (60) on the Remote Controller and select [WIPE] or [MIX].



3 Press the [STORE] Button (61) at the moment you want to save as a still picture.
   - The [WIPE] or [MIX] Indication appears, and the image is saved.

4 Press the [OFF/ON] Button (62) in the scene in which you want to use the Wipe or Mix effect.
   - The scene changes as a result of the Wipe or Mix effect.

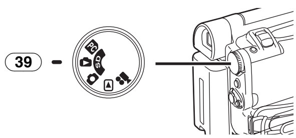
- The Wipe Function and Mix Function can be used only from the Remote Controller during playback.
- If the [OFF/ON] Button (62) is pressed while Wipe or Mix is carried out, the effect will stop temporarily at that point. Pressing the [OFF/ON] Button (62) again will bring back the effect.

- For other notes concerning this item, see *-102-*.

Playing Back a Card (NV-GS15 only)

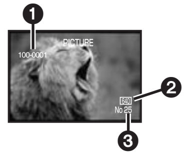
It plays back files recorded on a Card.

1 Set the Mode Dial (39) to Picture Playback Mode.



2 Start Playback.

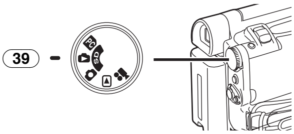
▶: Starting the Slide Show
▶▶: Playing back the next picture
◀◀: Playing back the previous picture
■: Stop the Slide Show
❚❚: Pause the Slide Show



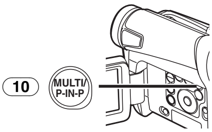
❶ Folder File Number
❷ Picture Size (-97-)
❸ File Number

To Select a Desired File and Playing Back

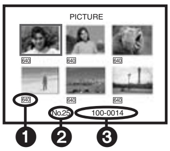
1 Set the Mode Dial (39) to Picture Playback Mode.



2 Press the [MULTI] Button (10).

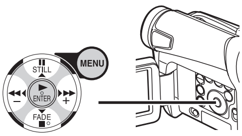


- The files recorded on the Card are displayed in Multi-Picture Mode.



❶ Picture Size
❷ File Number
❸ Folder File Number

3 Press the [❚❚/■/◀◀/▶▶] Button to select a desired file.



- The selected file is marked with a frame.

4 Press either the [ENTER] Button (17) or the [MULTI] Button (10).

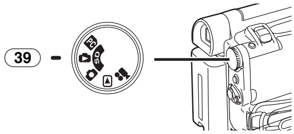
- The selected file is shown on the entire screen.

- For other notes concerning this item, see -102-.

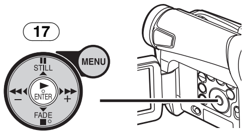
Slide Show (NV-GS15 only)

The recorded still pictures in the Card can be played back like a Slide Show.

1 Set the Mode Dial (39) to Picture Playback Mode.



2 Press the [▶] Button (17).



- The [SLIDE▷] Indication is displayed.



- Each of the pictures are played back for several seconds.

To Pause the Slide Show

Press the [❚❚] Button.

- The [SLIDE❚❚] Indication is displayed.



To Stop the Slide Show

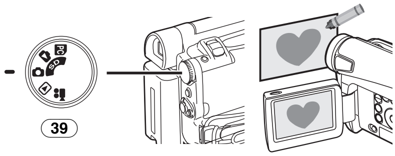
Press the [■] Button.

- For other notes concerning this item, see -102-.

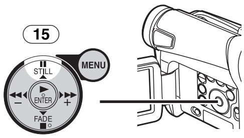
Creating a Title (NV-GS15 only)

You can create a title and record on a Card.

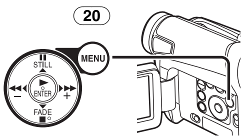
1 Recording Mode:
Set the Mode Dial (39) to Tape Recording Mode or Card Recording Mode.
Set the Lens to the image you want to use for creating a title.



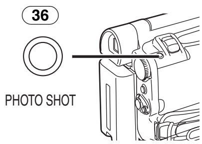
1 Tape Playback Mode:
Search for the image you want to use for creating a title and set the Movie Camera to the Still Playback Mode.



2 Set [CARD] >> [CREATE TITLE] >> [YES].



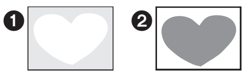
3 Press the [PHOTO SHOT] Button (36).



- The title is stored.
- To perform Photoshot again, select [RETURN].

4 Select [LUMINANCE] and press the [ENTER] Button (17), then press the [▶▶] Button (16) or [◀◀] Button (19) to adjust the title contrast and press the [ENTER] Button (17).

5 Press the [▶▶] Button (16) or [◀◀] Button (19) to adjust the colour and press the [ENTER] Button (17).



- The dark portion of the image is missing ❶, and the colours of the bright portion change in order of black, blue, green, cyan, red, magenta, yellow and white, after which the bright portion of the image is missing ❷ and the colours of the dark portion change in the above order.

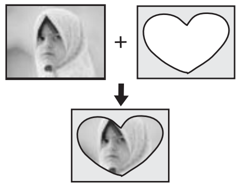
6 Select [RECORDING] and press the [ENTER] Button (17).

- The title is recorded on the Card.

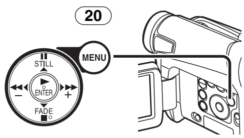
- For other notes concerning this item, see -102-.

Adding a Title (NV-GS15 only)

A title can be added to the picture. It is displayed in Tape/Card Recording Mode and Tape/Picture Playback Mode.



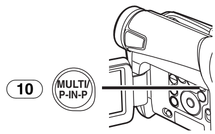
1 Set [DIGITAL] >> [TITLE IN] >> [ON].



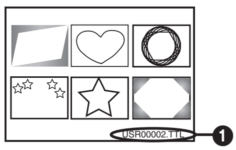
2 Press the [MENU] Button (20).

- The title is displayed.

3 Press the [MULTI] Button (10).

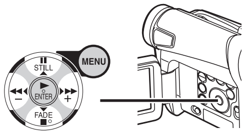


- A list of titles is displayed.



- File Name ❶

4 Press the [❚❚/■/◀◀/▶▶] Button to select a desired title.



- The selected title is marked with a frame.

5 Press the [ENTER] Button (17) or press the [MULTI] Button (10).
- The selected title is displayed.
- Recording and Photoshot Recording can be made with pictures that have titles.

- A title can be displayed also by pushing [TITLE] Button on the Remote Controller.

To Clear the Title Display

Set [DIGITAL] >> [TITLE IN] >> [OFF].
Or press [TITLE] Button (67) on the Remote Controller.

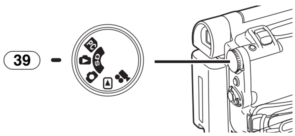
- For other notes concerning this item, see *-102-*.

Writing Printing Data on a Card (NV-GS15 only)

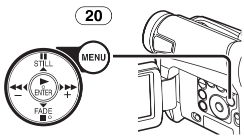
(DPOF Setting)

DPOF Setting Printing data (DPOF Settings), such as the number of images to be printed, can be written to the Card. "DPOF" means Digital Print Order Format.

1 Set the Mode Dial (39) to Picture Playback Mode.



2 Set [PICTURE PLAYBACK MENU] >> [EDITING] >> [DPOF SET] >> [YES] >> [VARIABLE].





- When all images are not printed, select [ALL 0].

3 Select a desired picture and press the [ENTER] Button (17).
- The selected picture is marked with a frame.
- The number of prints set by DPOF ❶ is displayed.

4 Press the [▶▶] Button (16) or [◀◀] Button (19) to select the number of pictures to be printed, and press the [ENTER] Button (17).
- [●] Indication ❷ is displayed in the picture set. (*-97-*)

5 Repeat Steps 3 and 4 and press the [MENU] Button (20) when the setup is completed.

To Verify DPOF Setting

Select [VERIFY] in Step 2. The pictures for which 1 or more print is set in DPOF are played back continuously.

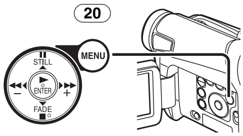
- For other notes concerning this item, see *-102-*.

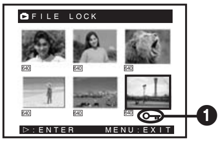
Protecting the Files on a Card (NV-GS15 only)

(Lock Setting)

Precious files recorded on a Card can be locked to prevent accidental erasure. (Even if files are locked, the files will be deleted if the Card is formatted.)

1 Set [PICTURE PLAYBACK MENU] >> [EDITING] >> [FILE LOCK] >> [YES].





2 Select the file to be locked, and press the [ENTER] Button (17).

- The selected file is locked and the [O-ㅠ] Indication ❶ appears. Repeat this procedure to lock 2 or more files.
- Press the [ENTER] Button (17) again to cancel.

- The SD Memory Card has a write protection switch. (*-103-*)

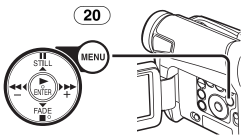
- For other notes concerning this item, see *-103-*.

Deleting the Files Recorded on a Card (NV-GS15 only)

Using the Movie Camera, you can delete the files recorded on a Card. After the file is deleted, it cannot be restored.

To Select and Delete Files or Titles

1 Set [PICTURE PLAYBACK MENU] >> [DELETE] >> [FILE BY SEL] >> [YES].

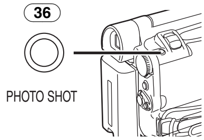


- To erase a title in [PICTURE PLAYBACK MENU], select [TITLE BY SEL].

2 Select the file you wish to delete and press the [ENTER] Button (17).

- The selected picture is marked with a frame.
- To erase 2 files or more, repeat this step.

3 Press the [PHOTO SHOT] Button (36).



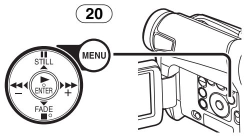
- A verification message appears.

4 Select [YES] and press the [ENTER] Button (17).

- The selected file is deleted from the Card.
- If [NO] is selected, the file selection is cancelled.

To Select and Delete All Files

1 Set [PICTURE PLAYBACK MENU] >> [DELETE] >> [ALL FILES] >> [YES].



- A verification message appears.

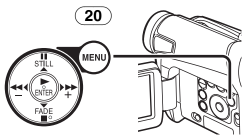
2 Select [YES] and press the [ENTER] Button (17).

- All files of Picture Playback Mode are erased.
- A locked file cannot be erased.
- If there are many files in a card, it takes several minutes for deleting.

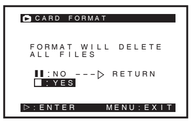
Formatting a Card (NV-GS15 only)

If a Card becomes unreadable by the Movie Camera, format it for reuse. Formatting erases all the data recorded on a Card.

1 Set [PICTURE PLAYBACK MENU] >> [EDITING] >> [CARD FORMAT] >> [YES].



- A confirmation message appears, select [YES] and formatting will be carried out.



- When the formatting is completed, the screen becomes white.

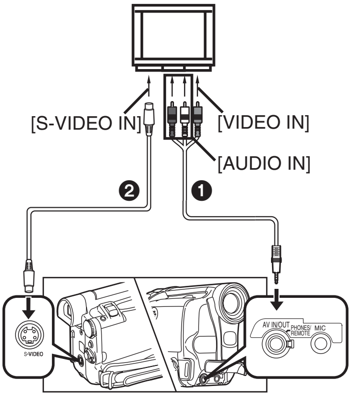
- It may not be able to use the Card formatted by this Movie Camera on other unit. In this case, format the Card on the unit which will use the Card. Make sure that valuable pictures are stored on your PC before proceeding.
- A Card formatted on other equipment (e.g. PC) might be unusable or it might take more time for recording. We recommend that you use this equipment to format the Card.

Playing Back on Your TV

By connecting your Movie Camera with your TV, the recorded scenes can be viewed on your TV screen.

- Before connecting them, turn off the power of both the Movie Camera and TV.

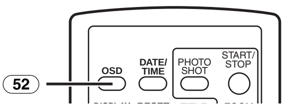
1 Connect the [AV IN/OUT] Socket of the Movie Camera and the Video and Audio Input Sockets of the TV.



- Connect to the TV with the AV Cable ❶, make a connection with the TV. If the TV has an S-Video Socket, connect the S-Video Cable ❷, too.
- When plugging the pin plug of the AV cable into the [AV IN/OUT] Socket, plug it in as far as it goes.

To Make the Indications Appear on the TV Screen

Press the [OSD] Button (52) on the Remote Controller.



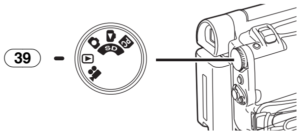
- For other notes concerning this item, see *-103-*.

Editing Mode

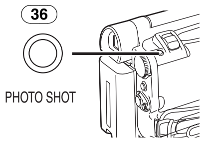
Recording from a Tape onto a Card (NV-GS15 only)

Still pictures can be recorded on the Memory Card from scenes that have already been recorded on a cassette.

1 Set the Mode Dial (39) to Tape Playback Mode.



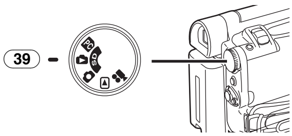
2 Start playback and set the Movie Camera to Still Playback Mode at the scene you wish to record, and press the [PHOTO SHOT] Button (36).



Recording Pictures from a Card onto a Tape (NV-GS15 only)

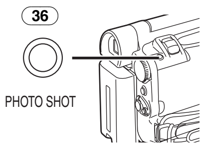
Card Images can be recorded to the Tape.

1 Set the Mode Dial (39) to Picture Playback Mode.



2 Display the first picture.

3 Press the [PHOTO SHOT] Button (36).



- During the copying, the following Indication appears.



- It takes a few seconds to record a picture to the Tape.
- When recording to tape, select the tape position before recording. The picture will be recorded to the tape position when the [PHOTO SHOT] Button is pressed at Step 3.
- Photoshot index signals are automatically recorded.

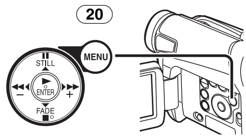
- For other notes concerning this item, see -103-.

Audio Dubbing

You can add music or narration to the recorded Cassette.

- If the tape recorded in the [16bit] Mode is dubbed with the Audio Dubbing function, the original sound is erased. (If you wish to preserve the original sound, use the [12bit] Mode when recording.)
- Audio Dubbing cannot be performed on a recording made in LP Mode. (-69-)

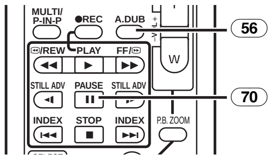
1 Set [TAPE PLAYBACK MENU] >> [AV IN/OUT] >> [AV JACK] >> [IN/OUT].



2 Continuing the aforesaid setup, select [A.DUB INPUT] >> [MIC] or [AV IN].

- Set to [AV IN] when external device is used, and to [MIC] when an external or built-in microphone is used.

3 Press the [❚❚] Button (70) on the Remote Controller where you want to add new sound.



4 Press the [A.DUB] Button (56) on the Remote Controller.

5 To start Audio Dubbing, press the [❚❚] Button (70) on the Remote Controller.

To Cancel Audio Dubbing

Press the [❚❚] Button (70) on the Remote Controller.

The Movie Camera is in the Still Playback Mode again.

To Play Back the Sound Recorded by 12bit Audio Dubbing

Set [TAPE PLAYBACK MENU] >> [PLAYBACK] >> [12bit AUDIO] >> [ST2] or [MIX].

ST1: It plays back only the original sound.

ST2: It plays back only the sound added by Audio Dubbing.

MIX: It plays back both the original sound and the sound added by Audio Dubbing simultaneously.

To Dub Audio While Listening to a Pre-recorded Sound

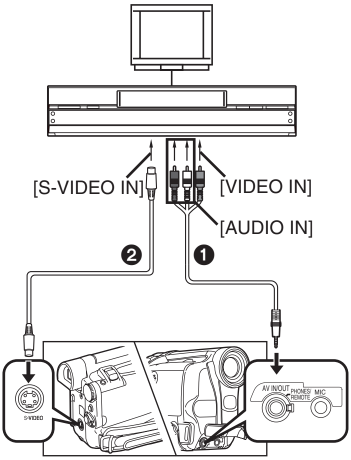
When pausing the audio dubbing, set the [12bit AUDIO] on the [PLAYBACK] Sub-Menu to [ST2] and you can check the pre-recorded sound. When a microphone is used for audio dubbing, use headphones to listen to the pre-recorded sound while dubbing the audio. (When using headphones, set [AV JACK] on the [AV IN/OUT] or [INITIAL] Sub-Menu to [OUT/PHONES].) When the line input is used, you can dub audio while listening to the pre-recorded sound from the speaker.

- For other notes concerning this item, see -103-.

Copying on an S-VHS (or a VHS) Cassette

(Dubbing)

After connecting the Movie Camera and the VCR as illustrated, start the following procedures.



❶ AV Cable
❷ S-Video Cable (not supplied)

- Be sure to press the [OSD] Button (-58-) on the Remote Controller prior to copying so that no indications are visible. Otherwise, the displayed tape counter and function indications are also copied.

Movie Camera:

1 Insert the recorded Cassette.

VCR:

2 Insert an unrecorded Cassette with an erasure prevention tab.
- If various setups (such as external input, tape speed, etc.) are required, please refer to the operating instructions of your VCR.

Movie Camera:

3 Press the [▶] Button to start playback.

VCR:

4 Start recording.

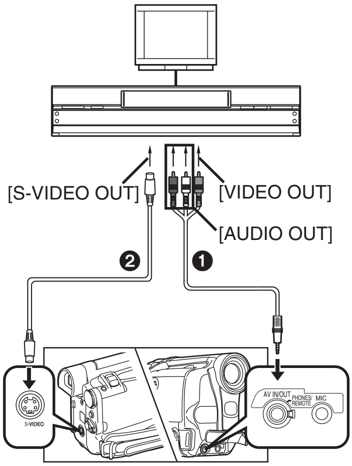
5 Press the Pause or Stop Button to stop recording.

Movie Camera:

6 Press the [■] Button to stop playback.

Recording the Contents of Other Equipment

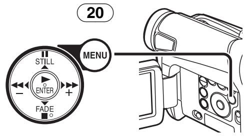
After connecting the Movie Camera and the other equipment as illustrated, start the following procedures.



❶ AV Cable
❷ S-Video Cable (not supplied)

Movie Camera:

1 Set [TAPE PLAYBACK MENU] >> [AV IN/OUT] >> [AV JACK] >> [IN/OUT].



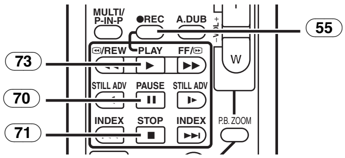
2 Insert an unrecorded Cassette.

Other Equipment:

3 Insert a recorded Cassette and start playback.

Movie Camera:

4 While pressing the [●REC] Button (55), press the [▶] Button (73). Or while pressing the [REC] Button (6), press the [BACK LIGHT] Button (12) on the Movie Camera.



- When Recording on a card, press the [PHOTO SHOT] Button. (NV-GS15 only)

5 Press the [❚❚] Button (70) or [■] Button (71) to stop recording.

Other Equipment:

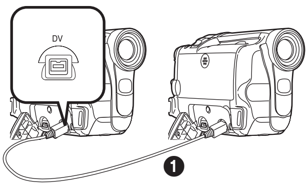
6 Press the Stop Button to stop playback.

- For other notes concerning this item, see -103-.

Using the DV Cable for Recording

(Digital Dubbing)

By connecting this Movie Camera to other digital video equipment that has a DV Input/Output Terminal with a DV Cable VW-CD1E (optional) ❶, dubbing can be done in the digital format.

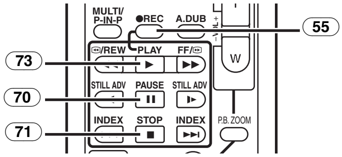


Player/Recorder:

1 Insert the Cassette and set to Tape Playback Mode.

Player:

2 Press the [▶] Button (73) to start playback.



Recorder:

3 While pressing the [●REC] Button (55), press the [▶] Button (73) on the Remote Controller. Or while pressing the [REC] Button (6), press the [BACK LIGHT] Button (12).

- Recording starts.

To Stop Dubbing

Press the [❚❚] Button (70) or the [■] Button (71).

- For other notes concerning this item, see -103-.

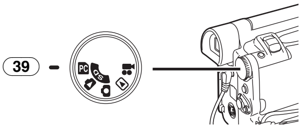
With a PC

Importing still pictures onto a PC (NV-GS15 only)

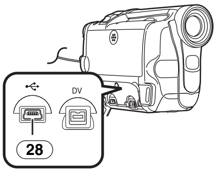
Using the supplied USB Connection Kit, you can import still pictures onto your personal computer.
- Do not connect the USB Cable until the USB Driver is installed.

1 Install the supplied USB Driver.

2 Set the Mode Dial (39) to PC Mode.



3 Connect the supplied USB Cable to [ ] Socket (28).
- PC connection mode is activated.



- Use AC Adaptor as power source for the Movie Camera. (The Card or its contents may be destroyed if battery power is lost while transmitting data.)
- Mode cannot be changed in PC connection mode by operating Mode Dial.
- For more details on the operating environment, installation, connections, and procedures, please refer to USB Connection Kit's operating instructions.
- To disconnect the USB Cable safely, double-click the [ ] Icon in the task tray and follow the instructions on the screen.

Using as a Web Camera or with DV STUDIO

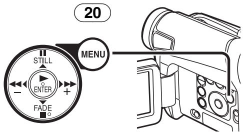
If the Movie Camera is connected to your Personal Computer, you can send video and sound from the Movie Camera to other parties via the network.
- Do not connect the USB Cable until the USB Driver and WebCam Driver is installed.

1 Install the supplied USB Driver and WebCam Driver.

2 Set the Mode Dial to Tape Recording Mode or Tape Playback Mode.

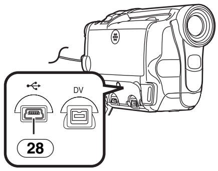
3 When using as a Web Camera:
Set [CAMERA] or [PLAYBACK] >> [USB FUNCTION] >> [WEB CAMERA].

When using with DV STUDIO:
Set [CAMERA] or [PLAYBACK] >> [USB FUNCTION] >> [DV STUDIO].



- It enters WEB CAMERA Mode or DV STUDIO Mode.

4 Connect the supplied USB Cable to [ ] Socket (28).



5 Start the Windows Messenger or DV STUDIO.
- DV STUDIO MODE can be used with Windows98 Second Edition/Me/XP.
- WEB CAMERA Mode can be used with Windows XP.
- When using as a Web Camera, it is not possible to record on a tape or a card or display a title.
- For more details on the operating environment, installation, connections, and procedures, please refer to USB Connection Kit's operating instructions.

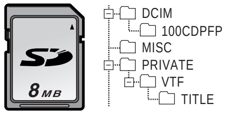
Using a Card in a Personal Computer (NV-GS15 only)

When using Card Data recorded with this Movie Camera, please note the following points.
- To erase pictures that you recorded on the Card by using the Movie Camera, be sure to erase them on the Movie Camera, not on the computer.
- Using the optional DV Editing Software (Motion DV STUDIO) for Windows (VW-DTM41), a variety of visual effects can be added and titles can be created.
- You may not be able to properly play back or search the images on the Movie Camera after changing the image data on a personal computer.
- The image data files recorded on the Card with this Movie Camera conform to the DCF (Design rule for Camera File system) stipulated by JEITA (Japan Electronics and Information Technology Industries Association).

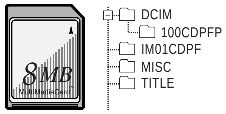
Folder Configuration when the Card is used with a PC

- When a Card with data recorded on it is inserted into a personal computer, folders will be displayed as in the figure.

SD Memory Card:



MultiMediaCard:



[100CDPFP]: The images (IMGA0001.JPG, etc.) in this folder are recorded in the JPEG format.

[MISC]: Files in which DPOF Data has been set to the image can be found here.

[TITLE]: This contains the data of the original titles (USR00001.TTL, etc.).

- [DCIM], [IM01CDPF], [PRIVATE], [VTF], etc. are necessary items in the folder structure. They have nothing to do with actual operations.
- In the Card Recording Mode, the Movie Camera automatically saves file numbers (IMGA0001.JPG, etc.) along with the images. The file numbers are recorded with each image as consecutive numbers.
- When using software without an indication function, indication data, such as date, are not displayed. Depending on the software in use, the date and the time may not be displayed correctly.
- The memory capacity indicated on the SD Memory Card label corresponds to the total amount of the capacity to protect and manage the copyright and of the capacity available as a conventional memory for a Movie Camera, Personal Computer or others.
  Capacity that can be used as conventional memory:
  8 MB Card: about 6,800,000 bytes

Others

Indications

Various functions and the Movie Camera status are shown on the screen.

: Remaining Battery Power

- When the battery power becomes low, the Indication changes. When the battery is discharged completely, the ( ) Indication flashes.

R0:45: Remaining Tape Time

- Remaining tape time is indicated in minutes. (When it reaches less than 3 minutes, the indication starts flashing.)

: Tape Recording Mode *-70-*
: Tape Playback Mode *-82-*
: Card Recording Mode *-72-*
: Picture Playback Mode *-85-*
: PC Mode *-94-*
CINEMA: Cinema Mode *-76-*
D.ZOOM: Digital Zoom *-74-*
MULTI: Multi Mode *-79-*
P-IN-P: P-IN-P Mode *-79-*
WIPE: Wipe Mode *-79-*
MIX: Mix Mode *-79-*
STROBE: Strobe Mode *-79-*
TRAIL: Trailing Effect Mode *-79-*
MOSAIC: Mosaic Mode *-79-*
MIRROR: Mirror Mode *-80-*
STRETCH: Stretch Mode *-80-*
SLIM: Slim Mode *-80-*
NEGA: Negative Mode *-80-*
SEPIA: Sepia Mode *-80-*
B/W: Black & White Mode *-80-*
SOLARI: Solarisation Mode *-80-*
(PB) ZOOM: Playback Zoom *-84-*
SP: Standard Play Mode (Recording Speed Mode) *-69-*
LP: Long Play Mode (Recording Speed Mode) *-69-*
INDEX: Index signal recording *-84-*
S 1: Search Number *-84-*
5×: Zoom Magnification Indication *-73-*
AUTO: Automatic Mode *-70-*
MNL: Manual Mode *-76-*
: Image Stabilizer *-74-*
MIC, AV IN: Audio Dubbing Input Display *-91-*
12 bit, 16 bit: Audio Recording Mode *-69-*
MF: Manual Focus *-79-*
: Back Light Mode *-75-*
: Sports Mode (Programme AE) *-76-*
: Portrait Mode (Programme AE) *-76-*
: Low Light Mode (Programme AE) *-76-*
: Spotlight Mode (Programme AE) *-76-*
: Surf & Snow Mode (Programme AE) *-77-*
REC: Recording *-70-*
PAUSE: Recording Pause *-70-*
: Self-Timer Recording *-73-*
▷: Playback *-82-*
❚❚: Still Playback *-83-*
▷▷: Fast-forward/Cue Playback *-82-*
◁◁: Rewind/Review Playback *-82-*
◁❚, ❚▷: Slow Motion Playback *-83-*
◁❚❚, ❚❚▷: Still Advance Playback *-83-*
|◁◁, ▷▷|: Index Search *-84-*
CHK: Recording Check *-71-*
A.DUB ▷: Audio Dubbing *-91-*
A.DUB ❚❚: Audio Dubbing Pause *-91-*
BLANK: Blank Search *-71-*
R ▷: Repeat Playback *-101-*
2×▷▷: Variable Speed Search *-83-*
1/500: When you adjust shutter speed manually, this indication appears. *-78-*
SLIDE▷: Slide Show Playback *-86-*
SLIDE❚❚: Slide Show Playback Pause *-86-*
F2.4: When you adjust the F Number manually, this indication appears. *-79-*
AWB: Automatic White Balance Mode *-77-*
: White Balance Adjustment Mode *-77-*
: Outdoor Mode *-77-*
: Indoor Mode (recording under incandescent lamp) *-77-*
C.NIGHT VIEW: Colour Night View Function *-75-*
Z.MIC: Zoom Microphone *-74-*
WIND CUT: Wind Noise Reduction *-76-*
P: Progressive Photoshot Mode *-71-*
SOFT SKIN: Soft Skin Mode *-76-*
PICTURE: Picture *-85-*
TITLE: Title picture *-87-*
VOLUME: Volume adjustment *-82-*
15:30:45: Date/Time Indication *-97-*
N (F, E): Photoshot Picture Quality (during Photoshot recording) [F] means Fine, [N] means Normal and [E] means Economy. *-72-*
000: Remaining Number of Photoshot pictures
: Continuous Photoshot Recording *-72-*
: Lock Setting *-89-*
: Video Light is on. *-72-*
GAINUP: Gain-up Mode *-72-*

● (White): DPOF Setting completed (set to 1 or more picture) -88-
[640]: [640×480] Image size

- For images not recorded with this Movie Camera, the size display is determined as follows according to the number of horizontal pixels.

[640]: 640 or more, less than 800 (The size is not displayed at under 640 pixels.)
[SVGA]: 800 or more, less than 1024
[XGA]: 1024 or more, less than 1280
[SXGA]: 1280 or more, less than 1600
[UXGA]: 1600 or more, less than 2048
[QXGA]: 2048 or more
[PICTURE] (Cyan): Photoshot Mode
[PICTURE] (Red): While Photoshot recording is activated
[PICTURE] (Green): While the card is being read
[PICTURE] (Red): No Card (Still Picture Mode)

To Change the Counter Display Mode

By changing [C.DISPLAY] on the [DISPLAY] Sub-Menu, you can change the Counter Display Mode to Tape Counter Indication [COUNTER] (0:00.00), Memory Counter Indication [MEMORY] (M0:00.00), and Time Code Indication [TIMECODE] (0h00m00s00f). (-66-) By repeatedly pressing the [DISPLAY] Button on the Remote Controller, you can change the Counter Display Mode.

To Display Date/Time Indication

To display Date/Time Indication, set the appropriate Date/Time in [DATE/TIME] on the [DISPLAY] Sub-Menu. (-66-)
You can also press the [DATE/TIME] Button of the Remote Controller repeatedly to display or change the Date/Time Indication.

To Change the Display Mode

By changing [DISPLAY] on the [DISPLAY] Sub-Menu, you can change the Display Mode to All Function Display [ALL] and Minimum Display [OFF]. (-66-)

Progressive Photoshot

You cannot use the Progressive Photoshot Function in the following cases.

When using Tape Recording Mode

- Digital Effect Modes in [EFFECT1]
- Digital Zoom [D.ZOOM]
- 1/750 s or faster shutter speed
- When brightness is insufficient
- When the Night View Function is ON
- When the Portrait Mode is used
- When the Built-in LED Video Light lights and the Gain Up mode is set to on.

When using Card Recording Mode (NV-GS15 only)

- When brightness is insufficient
- When the Night View Function is ON
- When the Built-in LED Video Light lights and the Gain Up mode is set to on.

Initializing the Modes

You can change the Menu settings back to the shipping condition.

1 Set [INITIAL] >> [INITIAL SET] >> [YES].

- The initializing takes a little while.
- After the initializing is completed, the [COMPLETED] Indication appears with beeps.

- Initializing will not erase the clock setting (-68-) that has been adjusted.

Warning/Alarm Indications

If any one of the following indications lights up or flashes, please check the condition of the Movie Camera.

DEW (DEW DETECT/EJECT TAPE):
Condensation has occurred. -104-

(CHECK REC TAB/TAPE NOT INSERTED):
You are attempting to record pictures on a Tape with setting the accidental erasure prevention slider to [SAVE].
You are attempting Audio dubbing or Digital dubbing on a Tape with setting the accidental erasure previntion slider to [SAVE].
No Cassette is inserted. -63-

(LOW BATTERY):
The Battery is low. Recharge it. -60-

: The built-in battery is low. -69-

(NEED HEAD CLEANING):
The video heads are dirty. -105-

END (TAPE END):
The tape came to the end during recording.

REMOTE (CHECK REMOTE MODE):
Wrong Remote Controller Mode has been selected. -60-

UNPLAYABLE TAPE
(OTHER FORMAT):
You are attempting to play back a tape section that has been recorded with a different TV system.

UNABLE TO A. DUB
(LP RECORDED):
Because the original recording was done in LP Mode, audio dubbing cannot be performed.

INCOMPATIBLE TAPE:
This cassette is incompatible.

PUSH THE
RESET SWITCH:
An irregularity in the mechanism has been detected. Press the [RESET] Button (-57-, -109-). This may solve the problem.

CARD FULL:
Card does not have sufficient memory remaining.
Select Picture Playback Mode and delete unnecessary files.

NO CARD:
Card is not inserted.

NO DATA:
There is no recorded files in the Card.

UNPLAYABLE CARD:
You are attempting to play back a data which is not compatible with this Movie Camera.

CARD ERROR:
This Card is not compatible with this Movie Camera.

COPY INHIBITED:
Because the medium is protected by a copy guard, images cannot be recorded correctly.

INCORRECT OPERATION:
The Recording Start/Stop Button is pressed without connecting the USB cable to the PC in Picture Playback Mode.

CAN NOT USE USB
CHANGE MODE:
The USB cable is connected to the Movie Camera in Card Recording Mode or Picture Playback Mode.

CAN NOT OPERATE:
You are attempting to record pictures on a Card with connecting the USB cable to the Movie Camera in Tape Recording/Playback Mode.

UNABLE TO WRITE
(MULTI RECORDING):
The [PHOTO SHOT] Button is pressed when you are recording pictures on a Tape with setting the Digital Effect [MULTI] of [EFFECT1].

UNABLE TO WRITE:
The Recording Start/Stop Button is pressed when you are recording still pictures on the Card.

CASSETTE DOOR OPENED:
Close the Cassette Compartment Cover before recording.

NO TITLE:
Titles are not recorded.

UNABLE TO WRITE
(WIDE MODE):
You are attempting to record pictures of S1 signal (with aspect ratio 16:9) by pressing the [PHOTO SHOT] Button.

FILE LOCKED:
You are attempting to erase protected pictures.

CARD LOCKED:
The write protection switch on the SD Memory Card is set to [LOCK].

DISCONNECT USB CABLE:
You are attempting to turn the Mode Dial or turn the Movie Camera off in PC Mode with connecting the USB cable to the Movie Camera.

Notes and Hints

Concerning the Power Supply
- When the Movie Camera is used for a long time, the Camera body becomes warm, but this is not a malfunction.
- If the [CHARGE] Lamp does not light up although the Battery is attached to the AC Adaptor, detach the Battery and reattach it.

Inserting/Removing the Cassette
- In the case of using a previously recorded Cassette, you can use the Blank Search Function to find the position where you want to continue recording.
- If a new Cassette is inserted, rewind to the beginning of the tape before starting recording.
- When inserting the cassette, make sure it faces in the right direction and then push it in until it stops.
- When the Cassette Holder is in action, do not touch anything except the [PUSH] mark.
- When closing the Cassette Compartment Cover, do not get anything caught in the cover, such as a cable of an optional stereo microphone.

Alarm Sounds
When [BEEP SOUND] on the [INITIAL] Sub-Menu on the [TAPE RECORDING MENU] is set to [ON], confirmation/alarm beeps are issued as follows.

1 Beep
- When you start recording
- When you switch the [OFF/ON] Switch from [OFF] to [ON]

2 Beeps
- When you pause recording

2 Beeps 4 times
- If you perform a wrong operation before or during recording

Recording Check

- For Recording Check, the recording speed mode (SP/LP) must be the same as the mode used for the recording. If different, playback images will be distorted.

Recording on a Card (NV-GS15 only)

- Even if the [SHTR EFFECT] is set to [ON], the Shutter Effect cannot be recorded on the picture.
- Pictures with wide-screen format signals cannot be copied.
- When the colour of the screen changes or blurs, adjust the shutter speed manually to 1/50 or 1/100.

Photoshot

- The sound cannot be recorded.
- The file format supported by this Movie Camera is JPEG. (Not all the JPEG formatted files will be played back.)
- If [NORMAL] or [ECONOMY] is selected for recording, mosaic-pattern noise may appear on a playback image depending on the image content.

Continuous Photoshot

- One more still picture may be recorded after you release the [PHOTO SHOT] Button.
- The Continuous Photoshot and Title Function cannot be used simultaneously.
- When the [SELF TIMER] is set to [ON], the Movie Camera records the maximum number of pictures recordable depending on the [BURST MODE] setting.
- When using the card formatted by other equipment, intervals of recording pictures may become large.
- If recording or erasing pictures is repeated many time, intervals of recording pictures may become large. In this case, back up your important data on PC, and format your card by this Movie Camera.
- Intervals of recording pictures may become large depending on the card. We recommend using Panasonic SD Memory Card.

Recording with the Built-in LED Video Light

- The subject should be within 1.5 metres of the Movie Camera.
- Using the LED Video Light reduces battery time.
- Set the LED Video Light to off when not in use.
- Do not look directly into the light.
- If the LED Video light is used with a Conversion lens attached, a slight vignetting (darkening around edges) effect occurs on the screen.
- Using the Night View Function at the same time will make conditions even brighter.
- The LED Video Light enables to lighten simply the images taken in a dimly-lit place. However we recommend using it in a bright place in order to obtain the high quality images.

Quick Start

- During the Quick Start Standby Mode, a minute amount of electricity is consumed.
- When the Movie Camera is left in the Recording Pause Mode for 6 minutes, it will be turned into the Quick Start Standby Mode. To turn the Movie Camera on again, set the [OFF/ON] Switch to [OFF] and then set it to [ON] again. (The Quick Start Mode will be restored.)
- This Function is not activated in the following cases:
  - Neither a card nor a tape has been inserted, while the Tape/Card Recording Mode is set.
- In the following cases, Quick Start is cancelled during the Quick Start Standby Mode.
  - Operate the Mode Dial.
  - The Battery is replaced
- If the [QUICK START] Button is pressed and held for approximately 2 seconds during the Quick Start Standby Mode, the Lamp will go off and the Movie Camera will completely be turned off.
- If the Movie Camera is not operated for approximately 30 minutes when the Quick Start Recording Lamp lights, the Lamp will go off and the Movie Camera will completely be turned off.
- In the Automatic White Balance Mode, the colour may be recorded unnaturally at the beginning of the recording.
- The zoom magnification differs from when it is in the Quick Start Standby Mode and when the recording starts.

Self-timer Recording

- When [BEEP SOUND] on the [INITIAL] Sub-Menu is set to [ON], the beep sound will be emitted in the Self-timer Standby Mode.
- By operating the [OFF/ON] Switch, Recording Start/Stop Button or Mode Dial, the Self-timer Standby Mode is cancelled.

Zoom In/Out Functions

- When you are zooming on a faraway subject, a sharper focus is achieved if the recording subject is 1.2 metres or further from the Movie Camera.
- When you record pictures with 10× or more of magnification, the Movie Camera is susceptible to camera shake. We recommend using a tripod.

Zoom Microphone Function
- The Zoom Microphone Function may not work effectively if the surrounding noise is too loud.
- It does not work with an external microphone.

Digital Zoom Functions
- As the magnification of digital zoom increases, the quality of image may deteriorate.
- White balance cannot be set in the digital zoom range.

Image Stabilizer Function
- The Image Stabilizer Function does not operate in a dimly lit place. In this case, the [ ] Indication flashes.
- Under fluorescent lighting, image brightness may change or colours may not look natural.
- After-images may appear.
- When a tripod is used, it is recommended that you turn the Image Stabilizer off.
- Within the digital zoom range, or when recording with a conversion lens attached, the Image Stabilizer Function may not work effectively.
- When you record pictures with setting 10× or more of magnification and turning the Image Stablizer Function to [ON] in dim places, after-images may stand out. In this case, we recommend using a tripod with turning the Image Stablizer Function to [OFF].
- The Image Stabilizer Function does not work. In this case, the [ ] Indication flashes.
- The Soft Skin Function and the Backlight Compensation Function cannot be changed.

Backlight Compensation Function
- When setting the Iris manually, the Backlight Compensation Function does not work.
- By operating the [OFF/ON] Switch, the Backlight Compensation Function is cancelled.

Night View Functions
- In a bright place, such as outdoors, the recorded picture may become whitish.
- In a dark place, the recorded picture is presented in a time-lapse-like manner.
- Adjust the Focus manually.
- The Progressive Photoshot Function is automatically turned off.
- The Continuous Photoshot Function cannot be used.
- White Balance cannot be set.
- The shutter speed cannot be adjusted.
- The Image Stabilizer, Programme AE, Multi Title Screen, or Digital Effect Modes in [EFFECT1] cannot be set.
- When recording with the Night View Function, it is recommended that you use the tripod.
- The Night View Function makes the signal charging time of CCD up to 25 times longer than usual, so that the dark scenes that are invisible to the naked eyes can be recorded brightly. For this reason, a bright dots may be seen, but this is not a malfunction.

Wind Noise Reduction Function
- It does not work with the microphone on an external microphone.
- When it is set to [ON], directivity of microphone is regulated depending on the strength of wind to reduce wind noise.

Cinema Function
- Using the Cinema Mode does not widen the recording angle.
- If you play back tape recorded in Cinema Mode on a wide-screen (16:9) format TV, playback size is automatically adjusted to fit the TV screen format. Please refer to the TV's operating instructions for details.
- When images are displayed on a TV screen, the Date/Time Indication may be erased in some cases.
- Depending on the TV, the picture quality may be deteriorated.
- The Cinema Mode is cancelled when a Title is displayed.
- The Cinema Mode and the Title Creation cannot be used simultaneously.
- Using the Cinema Mode deactivates [MULTI] and [P-IN-P] of [EFFECT1].
- Depending on the software in use, the imported Cinema picture may not be displayed correctly.

Programme AE
- If any of the Programme AE Modes are selected, you cannot adjust the shutter speed (-*78*-) or iris (-*78*-).
- Using the Night View Function cancels any of the Programme AE modes.
- Using the Light Function cancels any of the Program AE modes.

Sports Mode
- During normal playback, the image movement may not look smooth.
- Because the colour and brightness of the playback image may change, avoid recording under fluorescent light, mercury light or sodium light.
- If you record a subject illuminated with strong light or a highly reflective subject, vertical lines of light may appear.
- If the light is insufficient, the [ ] Indication flashes.

Sports Mode/Portrait Mode
- If you record a still picture in Progressive Photoshot Mode, the brightness and hue of the recorded still picture may become unstable.

- If this mode is used for indoor recording, playback images may flicker.

Low Light Mode

- Extremely dark scenes may not be able to be made brighter to a satisfactory degree.

Spotlight Mode

- With this mode, recorded images may become extremely dark.
- If the recording subject is extremely bright, its recorded image may becomes whitish.

Surf & Snow Mode

- If the recording subject is extremely bright, its recorded image may turn out to be whitish.

■ White Balance

In the following cases, you cannot change White Balance:

- When you set [EFFECT2] to [SEPIA] or to [B/W].
- When you set the Zoom to higher than 24×
- During Digital Still Picture Mode
- When you display a Menu
- When you use the Night View Mode

In the following cases, the [ ] Indication flashes:

- The flashing indicates that the previously adjusted White Balance setting is still kept. This setting will be kept until White Balance is adjusted again.
- You may not be able to achieve correct White Balance Adjustment manually under weak illumination.

■ Manual Shutter Speed Adjustment

- You may see vertical lines of light in the playback image of a brightly shining subject or highly reflective subject.
- During normal playback, movement in the images may not look smooth.
- Because the colour and brightness of the playback image may become unstable, avoid recording under fluorescent light, mercury light or sodium light.
- If you are using Night View Mode (*-75-*) or Programme AE Mode (*-76-*), you cannot adjust the shutter speed.

■ Manual Iris Adjustment

- Depending on zoom magnification, there are iris values that will not be displayed.
- If you are using Night View Mode (*-75-*) or Programme AE Mode (*-76-*), you cannot adjust the iris.
- If you attempt to adjust the Shutter Speed after setting the Iris, the value set for the Iris will be cancelled.

■ Digital Effect Functions

- If you have set [EFFECT2] to [B/W] or [SEPIA], changing the selected White Balance Mode is not possible. (*-77-*)
- Setting the Cinema Mode cancels the Picture-in-Picture Mode and the Multi-Picture Mode.
- During the Digital Still Picture Mode, the Digital Effect Functions cannot be set.

In the following cases, using the [EFFECT1] on the [DIGITAL] Sub-Menu is not possible.

- When the Night View Mode is set (*-75-*)
- When the Built-in LED Video Light lights and the Gain Up mode is set to on.

In the following cases, using the Digital Effect Function is not possible.

- Title In

Wipe Mode and Mix Mode

If the following operation is carried out, stored images will be erased, and Wipe and Mix Functions cannot be used.

- Set other item of Digital Effect
- Operate the [OFF/ON] switch or Mode Dial
- Insert or eject a cassette

Picture-in-Picture Mode

- If Mode Dial is operated, the smaller picture disappears.
- Titles cannot be inserted into the smaller picture.

Multi-Picture Mode

- If the [MULTI] Button is pressed while self-recording Mirror Mode (*-70-*) is used, the still picture is displayed from the upper right corner of the screen, but, in reality, the picture is recorded from the upper left corner as usual.
- The quality of Multi images deteriorates slightly.
- The top and bottom of the Multi pictures will be cut off slightly.

■ Playing Back

Repeat Playback

If you continue to press the [▶] Button for 5 seconds or longer, the Movie Camera switches to Repeat Playback Mode, and the [R ▷] Indication appears. (To cancel Repeat Playback Mode, set the [OFF/ON] Switch to [OFF].)

Listening to Playback Sound through Headphones

If you want to use the headphones to listen to the playback sound, set [AV JACK] on the [AV IN/OUT] or [INITIAL] Sub-Menu to [OUT/PHONES] and connect the headphones to the [PHONES] Socket (*-58-*) on the Movie Camera. In this case, no sound (including warning and shutter sounds) will be reproduced through the built-in speaker of the Movie Camera.

Choosing Sound during Playback

You can select the sound by using the [AUDIO OUT] setting on the [PLAYBACK] Sub-Menu.

STEREO:	Stereo Sound (main sound and sub sound)
L:	Left channel sound (main sound)
R:	Right channel sound (sub sound)

- If you dub a tape recorded at the [12bit] selected as the [AUDIO REC] on the [RECORDING] Sub-Menu, playback sound becomes stereo sound regardless of the [AUDIO OUT] setting if [12bit AUDIO] is set to [MIX].

Index Search Functions

- Index Search may not be possible at the beginning of the tape.
- Scene Index Search may not function properly if the interval between 2 scene index signals is less than 1 minute.

Playback Zoom Function

- You cannot adjust the sound volume with the Remote Controller in Playback Zoom Mode.
- If you turn off the Movie Camera power or if you operate the Mode Dial, Playback Zoom Mode is automatically cancelled.
- Even if Playback Zoom Functions are being used, images that are output from the DV Terminal (-57-) are not enlarged.
- As you enlarge an image, the quality of the image deteriorates.
- During a Playback Zoom, the Variable Speed Search Function cannot be changed with the Remote Controller.

Playback Digital Effect Functions

- Signals of images to which digital effects are added during playback cannot be output from the DV Terminal (-57-).
- You cannot use the Wipe or Mix Function while playing back the non-recorded portion of tape.

Playing Back a Card (NV-GS15 only)

- If a blank (nothing recorded) Card is played, the screen becomes white.
- If you attempt to play back a file recorded in a different format or a file data is defective, the whole display becomes bluish and the [UNPLAYABLE CARD] Indication may appear as warning.
- When playing back a picture recorded on other equipment, its size and that of this Movie Camera may appear differently.
- When playing back a picture recorded on other equipment, the picture may not be played back or the quality of pictures may be deteriorated.
- When playing back a nonstandardized file, the Folder File Number may not be displayed.
- In the following cases, black bars may appear, depending on the playback device.
  - When playing back a mega-pixel still-picture with this Movie Camera and recording it onto a tape
  - Changing the picture size to 640×480 pixels with DV STUDIO

Slide Show (NV-GS15 only)

- It may take playback time longer than usual time depending on the picture.

Creating a Title (NV-GS15 only)

- Even if the contrast of the Title is adjusted, the portions where there is little difference between light and dark and where the boundary between light and dark is unclear may not appear.
- The Title may not appear well if something small is used for it.
- If titles are created, the number of images that can be recorded on a Card decreases.
- If the number of images that can be recorded on a Card is small, you may not be able to create a title.

Adding a Title (NV-GS15 only)

- The Title In Function and Digital Effects cannot be used simultaneously.
- The Title In Function and Continuous Photoshot cannot be used simultaneously.
- When a title is displayed in Tape Playback Mode, the title is not output from the DV Terminal.
- The Multi-Picture Mode cannot be used once the title is inserted.
- A full-coloured title made on other equipment cannot be played back or added to the picture with this Movie Camera.
- A title with size other than 640×480 pixels cannot be displayed.
- When the title is displayed on the Multi screen, the recording and the playback cannot be performed.
- During external input or DV input, you cannot use Title In Function or display titles on the Multi screen. Select the desired titles to display them on the screen before connecting the cable to the Movie Camera.

DPOF (NV-GS15 only)

- Perform the DPOF Settings with your own Movie Camera in use.
- Verifying the DPOF Settings may take a little time. Wait until the Card Access Lamp goes out.

Lock Setting (NV-GS15 only)
- The Lock Setting carried out by this Movie Camera is only effective for this Movie Camera.
- The SD Memory Card has a write protection switch on it. If the switch is moved to the [LOCK] side, you cannot write to or format the Card. If it is moved back, you can.

Playing Back on Your TV
- Depending on your TV, nothing may be shown even if you correctly connect the movie camera with your TV. In this case, set [AV JACK] on the [AV IN/OUT] or [INITIAL] Sub-Menu to [OUT].
- If you set [AV JACK] on the [AV IN/OUT] Sub-Menu to [IN/OUT], nothing will be shown on the TV screen except during playback.
- Picture size may be displayed differently when playing back a Cinema picture on a wide-screen TV with Playback Digital Effect.

Recording Pictures from a Card onto a Tape (NV-GS15 only)
- When recording the Card Image on a Tape, its size is transformed into 720×576 according to the DV format.
- If you attempt to record a still picture with a large image size on a Tape, there may be a reduction in the quality of the image.

Audio Dubbing
- The blank section of a tape cannot be dubbed.
- Sounds sent through the DV Terminal cannot be dubbed.
- If a tape has a non-recorded portion when the tape is dubbed, images and sounds may be disturbed when this portion of the tape is played back.
- If you set the tape counter back to 0 at the position where you want to stop Audio Dubbing so as to make it possible to use the Memory Stop Function (*-110-*), Audio Dubbing is terminated automatically when the tape reaches this position.
- In the case of importing data recorded with Audio Dubbing to a PC using the PC's software, only the original sound (ST1) may be imported, depending on the software.

Recording the Contents of Other Equipment

Recording to a Card (NV-GS15 only)

If you set the Mode Dial to Card Recording Mode, you can use the Photoshot function for external input signals.
- Black streaks may appear at the 4 edges of the image.

Analog-Digital Conversion
- When the Movie Camera is connected with other digital video equipment through its DV Terminal, images recorded in analog form from other external equipment can be output to the digital video equipment through the DV Terminal.
- To DV-output analog video signals sent from other equipment, set [DV OUT] on the [AV IN/OUT] Sub-Menu to [ON]. (Normally, keep the [DV OUT] set to [OFF]. If it is set to [ON], the quality of the image may be disturbed.)

Using the DV Cable for Recording (Digital Dubbing)
- Regardless of the setting, digital dubbing is carried out automatically in the same audio recording mode as that of the playback Cassette.
- The images on the recorded monitor may be disturbed, but it does not affect the recorded images.
- Even if Playback Digital Effects, Playback Zoom, or Playback Title In have been used, these effects are not output from the DV Terminal.
- Even if you use device equipped with DV Terminals (such as IEEE1394), you may not be able to perform Digital Dubbing in some cases.
- Date or other information to be displayed cannot be displayed if the software of the connected equipment does not support the display function.

Cautions for Use

After Use
1. **Take out the Cassette. (*-63-*)**
2. **Set the [OFF/ON] Switch to [OFF].**
3. **Take out the Card (NV-GS15 only). (*-63-*)**
4. **Detach the power supply and retract the Viewfinder or the LCD Monitor. (*-60-*, *-64-*)**
5. **To protect the Lens, attach the supplied Lens Cap.**

Cautions for Use
When you use your Movie Camera in a rainy or snowy day or on a beach, make sure that no water enters the Movie Camera.
- Water may cause the Movie Camera or Cassette to malfunction. (Irreparable failure may occur.)
- If sea water splashes onto the Movie Camera, wet a soft cloth with tap water, wring it well, and use it to wipe the camera body carefully. Then, wipe it again thoroughly with a soft dry cloth.

Keep the Movie Camera away from magnetized equipment (such as a microwave oven, TV, video game equipment, etc.).

- If you use the Movie Camera on or near a TV, images or sounds may be disturbed due to electromagnetic wave radiation.
- Do not use near cell phone because doing so may cause noise to adversely affect the picture and sound.
- Recordings on the tape may be damaged, or images may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by a microprocessor may adversely affect the Movie Camera, causing the disturbance of images and sounds.
- If the Movie Camera is affected by magnetically charged equipment and does not function properly, turn off the Movie Camera power and detach the Battery or AC Adaptor and then connect the Battery or AC Adaptor again. Thereafter, turn on the Movie Camera power.

Do not use your Movie Camera near radio transmitters or high-voltage cables.

- If you record pictures near radio transmitters or high-voltage cables, recorded images or sounds may be adversely affected.

Do not use this Movie Camera for surveillance purposes or other business use.

- If you use the Movie Camera for a long period of time, the internal temperature increases and, consequently, this may cause malfunction.
- This Movie Camera is not intended for business use.

When you use your Movie Camera on a beach or similar place, do not let sand or fine dust get into the Movie Camera.

- Sand or dust may damage the Movie Camera or Cassette. (Care should be taken when inserting and removing the Cassette.)

Do not spray insecticides or volatile chemicals onto the Movie Camera.

- If the Movie Camera is sprayed with such chemicals, the camera body may be deformed and the surface finish may peel off.
- Do not keep rubber or plastic products in contact with the Movie Camera for a long period of time.

Do not use benzine, thinner or alcohol for cleaning the Movie Camera.

- The camera body may be deformed and the surface finish may peel off.
- Before cleaning, detach the Battery or pull out the AC Mains Lead from the AC mains socket.
- Wipe the Movie Camera with a soft dry cloth. To remove stubborn stains, wipe with a cloth that is soaked in a detergent diluted with water and afterwards finish wiping with a dry cloth.
- For storing or transporting the Movie Camera, place it in a bag or case lined with soft pads so as to prevent the coating on the camera body from being worn.

After use, be sure to take the Cassette out and detach the Battery from the Movie Camera or pull out the AC Mains Lead from AC mains socket.

- If the Cassette is left in the Movie Camera, the tape sags and deteriorates.
- If the Battery is left on the Movie Camera for a long time, the voltage drops excessively, and the Battery will not function even after it is recharged.

■ About AC Adaptor

- If the temperature of the Battery is extremely high or extremely low, the [CHARGE] Lamp may continue flashing, and the Battery may not be charged. After the temperature of the Battery has decreased or increased sufficiently, charging starts automatically. If the [CHARGE] Lamp continues to flash even after the Battery temperature has decreased or increased sufficiently, the Battery or AC Adaptor may be faulty. In this case, please contact a dealer.
- If the Battery is warm, charging takes a longer time than normal.
- If you use the AC Adaptor near a radio, radio reception may be disturbed. Keep the AC Adaptor 1 metre or more away from radio.
- When using the AC Adaptor, it may generate whirring sounds. However, this is normal.
- After use, be sure to pull out the AC Mains Lead from the AC mains socket. (If they are left connected, a minute amount of current is consumed.)
- Keep the electrodes of the AC Adaptor and Battery always clean.

■ Condensation

If you turn the Movie Camera on when condensation occurs on the head or the tape, Condensation Indication [💧DEW] (yellow or red) blinks on the Viewfinder or the LCD monitor and the messages [DEW DETECT] or [EJECT TAPE] (only when the tape is inserted) appear. In this case, follow the procedure below.

Blink in yellow:

Dews are slightly adhering on the head or the tape.

Blink in red:
Dews are adhere on the head or the tape.

1 **Remove the tape if it is inserted.**
- It takes about 20 seconds to open the Cassette Holder. This is not a malfunction.

2 **Leave the Movie Camera with the Cassette Compartment Cover closed to cool or warm it to the ambient temperature.**

When [DEW] blinks in yellow
- You cannot use the Tape Recording/ Playback Mode. Leave the Movie Camera for about 30 minutes.
- However, you can use the Card Recording Mode or Picture Playback Mode when the cassette is not inserted.

When [DEW] blinks in red
- The Power Indicator Lamp blinks for about 1 minute and then the Movie Camera automatically turns off. Leave it for about 2 to 3 hours.

3 **Turn the Movie Camera on again, set it to the Tape Recording/Playback Mode and then check if the condensation indication disappears.**

Especially in cold districts, dews may be frozen. In this case, it may take more time before the condensation indication disappears.

Watch for Condensation even before the Condensation Indication is displayed.
- The condensation indication may not appear depending on circumstances. When condensation occurs on the lens or the Movie Camera, it also may occur on the head and the tape. Do not open the Cassette Compartment Cover.

When the Lens is Fogged:
Set the [OFF/ON] Switch to [OFF] and leave the Movie Camera in this condition for about 1 hour. When the lens temperature becomes close to the ambient temperature, the fogging disappears naturally.

Video Head Clogging and Care

If the heads (the parts that make contact with the tape) are dirty, mosaic-pattern noise may appear on the playback image, or the screen as a whole becomes black. If the heads are extremely dirty, recording performance deteriorates, and, in the worst case, the Movie Camera cannot record at all.

Causes of Dirty Heads
- Large quantity of dust in the air
- High-temperature and high-humidity environment
- Damaged tape
- Long operating hours

Using Mini-DV Format Digital Video Head Cleaner

1 **Insert the Head Cleaner into the Movie Camera in the same manner as a Video Cassette.**

2 **Press the [▶] Button, and approximately 20 seconds later, press the [■] Button. (Do not rewind the tape.)**

3 **Take out the Head Cleaner. Insert a Video Cassette and start recording. Then, play the tape back to check the recorded image.**

4 **If the image is not still clear, repeat Steps 1 to 3. (Do not use the Head Cleaner for 3 times or more consecutively.)**

Notes:
- Do not rewind every time you use the Head Cleaner. Rewind only when the tape reaches the end, and then use it again from the beginning in the same manner as before.
- If the heads become dirty soon after cleaning, the tape may be damaged. In this case, immediately stop using that Cassette.
- Do not clean the heads excessively. (Excessive cleaning may cause excessive wear of the heads. If the heads are worn, images cannot be played back even after the heads are cleaned.)
- If the dirty heads cannot be cleaned with the Head Cleaner, the Movie Camera needs to be cleaned at a service centre. Please consult a dealer.
- Video Head Cleaners can be purchased from service centres.
- Head cleaning due to dirty heads is not considered a malfunction of the product. It is not covered by the warranty.

Periodical Check-up
To maintain the highest image quality, we recommend replacement of worn parts, such as heads, etc., after approximately 1,000 hours of use. (This, however, depends on operating conditions, such as temperature, humidity, dust, etc.)

Optimal Use of the Battery

Battery Characteristics
This Battery is a rechargeable lithium ion battery. Its ability to generate power is based upon the chemical reaction that takes place inside it. This reaction is susceptible to the surrounding temperature and humidity, and, if the temperature is too high or too low, the operating time of the Battery becomes shorter. If the Battery is used in an extremely cold environment, the Battery may operate only for about 5 minutes. If the Battery becomes extremely hot, a protective function may operate, and the Battery may become unusable for a while.

Be Sure to Detach the Battery after Use
Be sure to detach the Battery from the Movie Camera. (If it is left attached to the Movie Camera, a minute amount of current is consumed even when the Movie Camera power is off.) If the Battery is left attached to the Movie Camera for a long time, over-discharge takes place. The Battery may become unusable after it is charged.

Disposing of an Unusable Battery
- The Battery has a limited life.
- Do not throw the Battery into fire because it may cause an explosion.

Always Keep the Terminals of the Battery Clean
Prevent the terminals from getting clogged with dirt, dust, or other substances.
If you drop the Battery accidentally, check to see if the Battery body and terminals are deformed. Attaching a deformed Battery to the Movie Camera or AC Adaptor may damage the Movie Camera or AC Adaptor.

Cautions for Storage

Before storing the Movie Camera, take the Cassette out and detach the Battery.
Store all the components in a dry place with a relatively stable temperature.
(Recommended Temperature: 15 to 25°C, Recommended Humidity: 40 to 60%)

Movie Camera
- Wrap it with a soft cloth to prevent dust from getting into the Camera.
- Do not leave the Movie Camera in places that expose it to high temperature.

Battery
- Extremely high temperatures or low temperatures will shorten the life of the Battery.
- If the Battery is kept in smoky or dusty places, the terminals may rust and cause malfunctions.
- **Do not allow the Battery terminals to come in contact with metal objects (such as necklaces, hairpins, etc.). This can result in a short circuit or heat generation and, if you touch the Battery in this condition, you may be badly burned.**
- Store the Battery in a completely discharged state. To store the Battery for a long period of time, we recommend you charge it once every year and store it again after you completely use up the charged capacity.

Cassette
- Before storing it, rewind the tape to the beginning. If the Cassette is left for more than 6 months with the tape stopped midway, the tape sags (although it depends on the storage condition). Be sure to rewind to the beginning.
- Store the Cassette in its case. Dust, direct sunlight (ultraviolet rays), or humidity may damage the tape. Dust contains hard mineral particles, and dusty Cassettes damage the heads of the Movie Camera and other components. Develop a habit of returning the Cassette back to its case.
- Once every half year, wind the tape to the end and then rewind it to the beginning. If the Cassette is left for 1 year or longer without winding or rewinding, temperature and humidity changes may cause the Cassette to deform due to swelling, shrinking, and so forth. The wound tape may stick to itself.
- Do not place a Cassette near highly magnetic substances or equipment.
- The surface of tape is covered with extremely minute magnetic particles, upon which signals are recorded. Magnetic necklaces, toys, etc., have magnetic force that is stronger than you may normally expect, and they may erase the contents of a recording or may cause noise in images and sounds.

Card (NV-GS15 only)
- When the Card is being read, do not remove the Card, turn off the power, or subject it to vibration or impact.
- Do not leave the Card in places where there is high temperature or direct sunlight, or where electromagnetic waves or static electricity are easily generated.
- Do not bend or drop the Card. The Card or the recorded content may be damaged.
- After use, be sure to remove the Card from the Movie Camera.
- After usage, store the supplied SD Memory Card in the enclosed bag.
- Do not touch the terminals on the back of the Card with your fingers. Do not allow dirt, dust or water to enter it.

LCD Monitor/Viewfinder/Lens Hood

LCD Monitor
- In a place with drastic temperature changes, condensation may form on the LCD Monitor. Wipe it with a soft dry cloth.
- If your Movie Camera is extremely cold when you turn its power on, the image on the LCD Monitor is slightly darker than usual at first. However, as the internal temperature increases, it goes back to the normal brightness.

Extremely high precision technology is employed to produce the LCD Monitor screen featuring a total of approximately 105,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Viewfinder

- Do not direct the Viewfinder or Lens to the sun. Internal components may be seriously damaged.
- When the Movie Camera is used with a large capacity Battery (CGR-D16S, CGP-D28S; optional) attached to it, it is not practical to look in the Viewfinder from behind the Battery.

Extremely high precision technology is employed to produce the Viewfinder screen featuring a total of approximately 67,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Lens Hood

- Do not attach other conversion lenses in front of the Lens Hood; there is no mount to be used for the attachment.
- When you wish to attach the Tele Conversion Lens (VW-LT2714N2E; optional), Wide Conversion Lens (VW-LW2707N2E; optional), MC Protector (VW-LMC27E; optional), or ND Filter (VW-LND27E; optional), first of all, turn the Lens Hood counterclockwise. If the MC Protector or ND Filter is used, the Lens Hood can be mounted on the filter.
- If you push the [W/T] Lever toward [W] during recording with the filter and conversion lens attached together to the Movie Camera, 4 corners of the image may become dark (vignetting). For details, please refer to the operating instructions of your accessories.
- Be sure to keep the Lens Hood attached to the Movie Camera so as to shut out unnecessary light.

Before Requesting Repair (Problems and Solutions)

Power

1: The Movie Camera power cannot be turned on.
- Is the power source connected correctly? (*-60-*)

2: The Movie Camera power is turned off automatically.
- When the Recording Pause Mode continues for more than 6 minutes, the power is turned off automatically for tape protection and power conservation. (If the AC Adaptor is used, the power is turned off only when the tape is inserted in Tape Recording Mode.) When the tape is inserted in Tape Recording Mode and if the Recording Pause Mode continues for more than 6 minutes, the power is turned off automatically.
  To resume recording from this condition, turn off, then turn on the power again. (*-70-*)

3: The Movie Camera power does not stay on long enough.
- Is the Battery low? Charge the Battery or attach a fully charged Battery. (*-60-*)
- Has condensation occurred? Wait until the Condensation Indication disappears. (*-104-*)

Battery

1: Battery runs down quickly.
- Is the Battery fully charged? Charge it with the AC Adaptor. (*-60-*)
- Are you using the Battery in an extremely cold place? In cold places, the operating time of the Battery becomes shorter. (*-105-*)
- Has the Battery worn out? If the operating time is still too short even after the Battery is fully charged, the Battery has worn out.

2: The Battery cannot be charged.
- If the DC Input Lead is connected to the AC Adaptor, charging cannot be performed. Disconnect the DC Input Lead.

Normal Recording

1: Recording does not start although power is supplied to the Movie Camera and the Cassette is correctly inserted.
- Is the accidental erasure prevention slider on the Cassette open? If it is open (set to [SAVE]), recording cannot be performed. (*-63-*)
- Is the tape wound to the end? Insert a new Cassette. (*-63-*)
- Is the Movie Camera power turned on? (*-70-*)
- Has condensation occurred? Wait until the Condensation Indication disappears. (*-104-*)

Other Recording

1: Auto Focus Function does not work.

- Is Manual Focus Mode selected? If Auto Focus Mode is selected, focus is automatically adjusted. (*-79-*)
- There are some recording subjects and recording surroundings for which the Auto Focus Function does not operate correctly. In this case, use the Manual Focus Mode to adjust the focus. (*-109-*)

Editing

1: Audio dubbing cannot be performed.

- Is the accidental erasure prevention slider on the Cassette open? If it is open (set to [SAVE]), recording cannot be performed. (*-63-*)
- Are you attempting to edit a tape portion that was recorded in LP Mode? LP Mode does not allow audio dubbing to operate. (*-69-*)

Indications

1: The Time Code becomes inaccurate.

- The Time Code Indication counter may not be constant in the reverse direction in Slow Motion Playback Mode, but this is not a malfunction.

2: The Remaining Tape Time Indication does not match the actual remaining tape time.

- If scenes of less than 15 seconds are continuously recorded, the remaining tape time cannot be displayed correctly.
- In some cases, the Remaining Tape Time Indication may show remaining tape time that is 2 to 3 minutes shorter than the actual remaining tape time.

Playback (Pictures)

1: Pictures cannot be played back even when the [▶] Button is pressed.

- Is the Mode Dial set to Playback Mode? If not, the playback function cannot be used. (*-82-*)

2: Mosaic-pattern noise appears on images during Cue, Review or Slow Motion Playback.

- This phenomenon is characteristic of digital video systems. It is not a malfunction.

3: Although the Movie Camera is correctly connected to a TV, playback images cannot be seen.

- Have you selected “Video Input” on the TV? Please read the operating instructions of your TV and select the channel that matches the input sockets used for the connection.
- Depending on your TV, nothing may be shown even if you correctly connect the movie camera with your TV. In this case, set [AV JACK] on the [AV IN/OUT] or [INITIAL] Sub-Menu to [OUT].

4: Playback picture is not clear.

- Are the heads of the Movie Camera dirty? If the heads are dirty, playback image cannot be clear. (*-105-*)

5: Playing back or recording do not function, the screen has frozen or the indication has disappeared.

- Turn the Movie Camera off. If the Movie Camera is not turned off after operating the [OFF/ON] switch, press the [RESET] Button (*-57-*, *-109-*) first. And detach the Battery or AC Adaptor and then reattach it.

Playback (Sound)

1: Sound is not played back from the built-in speaker of the Movie Camera or the headphones.

- Is the volume too low? During playback, push the [W/T] Lever to display the [VOLUME] Indication and adjust the volume. (*-82-*)

2: Different sounds are reproduced at the same time.

- [12bit AUDIO] on the [PLAYBACK] Sub-Menu of the [TAPE PLAYBACK MENU] has been set to [MIX]. As a result, the original sound and sound that was recorded by audio dubbing are played back together. It is possible to reproduce the sounds separately. (*-92-*)

3: The original sound was erased when audio dubbing was performed.

- If you perform audio dubbing on a recording made in [16bit] Mode, the original sound will be erased. If you wish to preserve the original sound, be sure to select [12bit] Mode at the time of recording.

4: Sounds cannot be played back.

- Although a Cassette with no audio dubbing is being played, is [12bit AUDIO] on the [PLAYBACK] Sub-Menu of the [TAPE PLAYBACK MENU] set to [ST2]? To play back a Cassette with no audio dubbing, [12bit AUDIO] must be set to [ST1]. (*-92-*)
- Is the Variable Speed Search Function working? Press the [▶] Button to cancel the Variable Speed Search Function. (*-83-*)

Card (NV-GS15 only)

1: Recorded pictures are not clear.

- Is [PICT QUALITY] on the [CARD] Sub-Menu set to [NORMAL] or [ECONOMY]? If recording is done with it set to [NORMAL] or [ECONOMY], images with fine details may include a mosaic-like pattern. Set [PICT QUALITY] to [FINE]. (*-72-*)

2: Photoshot Playback images do not look normal.

- The picture may be damaged. In order to prevent the loss of image data, backing up on a Cassette or a personal computer is recommended. (*-91-*, *-94-*)

3: During Playback, [UNPLAYABLE CARD] is displayed.

- The image was either recorded in a different format, or data is damaged.

4: Even if a Card is formatted, it cannot be used.

- Either the Movie Camera or the Card may be damaged. Please consult a dealer.

Others

1: The Free Style Remote Controller does not operate correctly.

- If it is not plugged in tightly, it will not operate correctly.

2: The Movie Camera clatters when shaking it.

- It is a sound of the lens moving, not a malfunction.

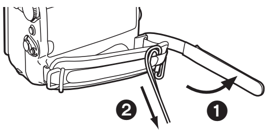
3: When the USB Cable is disconnected, an error message will appear on PC.

- To disconnect the USB cable safely, double-click the [ ] icon in the task tray and follow the instructions on the screen. (*-94-*)

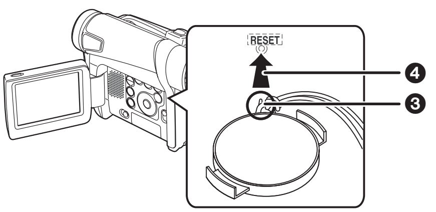
Using the RESET button

1 **Open the LCD Monitor.** (*-64-*)

2 **Undo Grip Belt end ❶ and pull Lens Cap Cord ❷ downward to loosen Grip Belt.**



3 **Use projection ❸ on the Lens Cap to press the [RESET] Button ❹.**



Explanation of Terms

Digital Video System

In a digital video system, images and sounds are converted into digital signals and recorded on a tape. This complete digital recording is capable of recording and playback with minimal image and sound deterioration.

In addition, it automatically records data, such as Time Code and Date/Time, as digital signals.

Compatibility with S-VHS or VHS Cassettes

Because this Movie Camera employs a digital system for recording image and sound data, it is not compatible with conventional S-VHS or VHS video equipment that employs an analog recording system.

The size and shape of the Cassettes are also different.

Compatibility with Output Signals

Because AV signal output from the AV signal output socket is analog (the same as conventional video systems), this Movie Camera can be connected with S-VHS or VHS video or a TV for playback.

Focus

Auto Focus Adjustment

The Auto Focus System automatically moves forward and backward the focusing lens inside the Movie Camera to bring the subject into focus so that the subject can be seen clearly.

However, the Auto Focus System does not function properly for the following subjects or under the following recording conditions.

Please use the Manual Focus Mode instead.

1) **Recording a subject whose one end is located closer to the Movie Camera and the other end farther away from it**
   - Because Auto Focus makes adjustments at the centre of an image, it may be impossible to focus on a subject that is located in both foreground and background.
2) **Recording a subject behind dirty or dusty glass**
   - Because the focus is on the dirty glass, the subject behind the glass will not be focused.
3) **Recording a subject in dark surroundings**
   - Because the light information that comes through the lens decreases considerably, the Movie Camera cannot focus correctly.
4) **Recording a subject that is surrounded by objects with glossy surfaces or by highly reflective objects**
   - Because the Movie Camera focuses on the objects with glossy surfaces or on highly reflective objects, the recording subject may become blurry.

5) Recording a fast-moving subject
- Because the focus lens-inside moves mechanically, it cannot keep up with the fast-moving subject.

6) Recording a subject with little contrast
- Because the Movie Camera achieves focus based upon the vertical lines of an image, a subject with little contrast, such as a white wall, may become blurry.

Time Code

Time Code signals are data that indicate time measured in hours, minutes, seconds, and frames (25 frames per second). If this data is included in a recording, an address is assigned to each image on the tape.

- The Time Code is automatically recorded as a part of the sub-code at each recording.
- When a new (previously unrecorded) Cassette is inserted, the Time Code automatically starts from zero. If a recorded Cassette is inserted, the Time Code picks up from the point where the last scene was recorded. (In this case, when the Cassette is inserted, the zero display [0h00m00s00f] may appear, but the Time Code starts from the previous value.)
- The Time Code cannot be reset to zero.
- Unless the Time Code is continuously recorded from the beginning of a tape, accurate editing may not be possible. To ensure that the Time Code will be recorded with no breaks, we recommend the use of the Blank Search Function (*-71-*) before recording a new scene.

Memory Stop Function

The Memory Stop Function is useful for the following operations.

Rewinding or fast-forwarding a tape to a desired position

1. **Set [DISPLAY] >> [C.DISPLAY] >> [MEMORY].**
2. **Reset the Tape Counter to zero at the tape position from which you want to play it back later. (*-58-*, *-66-*)**
3. **Start playback or recording.**
4. **After playback or recording has finished: Set the Movie Camera to Tape Playback Mode.**
5. **Rewind the tape.**
   - The tape automatically stops approximately at the position where the counter was set to zero.

Stopping editing automatically during audio dubbing

1. **Set [DISPLAY] >> [C.DISPLAY] >> [MEMORY].**
2. **Reset the Tape Counter to zero at the position where you want to stop editing.**
3. **Play back the still picture where you want to start audio dubbing.**
4. **Start audio dubbing. (*-91-*)**
   - Audio dubbing automatically stops at the position where the counter was set to zero.

Specifications

Specifications

Digital Video Camera
Information for your safety

Power Source:
DC 7.9/7.2 V
Power Consumption:
Recording
2.6 W (When using Viewfinder)
3.3 W (When using LCD Monitor)

Recording Format:
Mini DV (Consumer-use Digital Video SD Format)
Tape Used:
6.35 mm digital video tape
Recording/Playback Time:
SP: 80 min.; LP: 120 min. (with DVM80)
Video
Recording System:
Digital Component
Television System:
CCIR: 625 lines, 50 fields PAL colour signal
Audio
Recording System:
PCM Digital Recording
16 bit (48 kHz/2ch), 12 bit (32 kHz/4ch)
Image Sensor:
1/6-inch CCD Image Sensor
Lens:
Auto Iris, F1.8, Focal Length; 2.1–50.4 mm, Macro (Full Range AF)
Filter Diameter:
27 mm
Zoom:
24:1 Power Zoom
Monitor:
2.5-inch LCD
Viewfinder:
Electronic Viewfinder
Microphone:
Stereo (with a zoom function)
Speaker:
1 round speaker ∅ 20 mm
Standard Illumination:
1,400 lx
Minimum Required Illumination:
2 lx (Colour Night View Mode)
Video Output Level:
1.0 Vp-p, 75 ohm
S-Video Output Level:
Y Output: 1.0 Vp-p, 75 ohm
C Output: 0.3 Vp-p, 75 ohm
Audio Output Level (Line):
316 mV, 600 ohm
Video Input Level:
1.0 Vp-p, 75 ohm
S-Video Input Level:
Y Input: 1.0 Vp-p, 75 ohm
C Input: 0.3 Vp-p, 75 ohm
Audio Input Level (Line):
316 mV, 10 kohm or more
Mic Input:
Mic sensitivity –50 dB (0 dB=1 V/Pa, 1 kHz) (Stereo mini jack)
USB:
Card reader/writer function (NV-GS15 only), USB 2.0 compliant (max. 12 Mbps)
No copyright protection support
Digital Interface:
DV Input/Output Terminal (IEEE1394, 4-pin)
Dimensions:
Approx. 69 (W)×87 (H)×112 (D) mm
Weight:
Approx. 410 g (without Battery and DV cassette)
Approx. 490 g (with CGR-D08R and DVM60)
Operating Temperature:
0°C–40°C
Operating Humidity:
10%–80%
Card Memory Functions
Recording Media (NV-GS15 only):
MultiMediaCard (4 MB/8 MB/16 MB),
SD Memory Card (8 MB/16 MB/32 MB/64 MB/128 MB/256 MB/512 MB)
Still Picture Recording File Format (NV-GS15 only):
JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding
Still Image Size (NV-GS15 only):
640×480 pixels (VGA)
Web Camera
Compression:
Motion JPEG
Image Size:
320 ×240 pixels (QVGA)

AC Adaptor (VSK0581)
Information for your safety

Power Source:
AC 100–240 V, 50/60 Hz
Power Consumption:
20 W
DC Output:
DC 7.9 V, 9 W (Movie Camera Operation)
DC 8.4 V, 1.2 A (Battery Charging)

Dimensions:
70 (W)×45 (H)×116 (D) mm
Weight:
Approx. 165 g

Weight and dimensions are approximate values.
Specifications may change without prior notice.

Maximum number of still pictures recordable on an SD Memory Card (optional)

PICTURE QUALITY	FINE	NORMAL	ECONOMY
8 MB	45	95	190
16 MB	100	200	400
32 MB	220	440	880
64 MB	440	880	1760
128 MB	880	1760	3520
256 MB	1760	3520	7040
512 MB	3520	7040	14080

- These figures vary depending on the subject being photographed.
- The numbers shown in the table are approximations.

Matsushita Electric Industrial Co., Ltd.
Web site: http://www.panasonic.co.jp/global/

松下电器产业株式会社
日本国大阪